

"LOISETTE" EXPOSED

(MARCUS DWIGHT LARROWE, *alias* SILAS HOLMES, *alias*
ALPHONSE LOISETTE.)

TOGETHER WITH

LOISETTE'S COMPLETE SYSTEM OF

PHYSIOLOGICAL MEMORY

THE INSTANTANEOUS ART OF NEVER FORGETTING

TO WHICH IS APPENDED A

BIBLIOGRAPHY OF MNEMONICS

1325-1888

BY

G. S. FELLOWS, M.A.

On sale at every bookstall and news-stand in England and America

Sent, post-paid, by the publishers, to any address within the Postal Union
on receipt of 1s. or 25 cents; cloth, 2s. or 50 cents

NEW YORK

G. S. FELLOWS & CO.

Phil 5545.38.26

NOT 15 1888

By mail'

COPYRIGHT, 1888
BY G. S. FELLOWS.

"PROFESSOR" LOISETTE'S SYSTEM.

"The Professor [Loisette] tells us that he believes his system 'is destined to work as great a revolution in educational methods as Harvey's discovery of the circulation of the blood in physiology,' but it is difficult to see how this is to be effected while it is kept a secret."—*David Kay*.

"It [Loisette's Method] certainly differs in some respects from other systems, inasmuch as what are known to other mnemonists as 'keys' and 'associations' appear here under other names."—*Middleton*.

"The theory of association as given by psychologists has not a leg to stand on. . . . The justification of the law of contiguity is equally absurd." [With the law of similarity.]—*Loisette*.

"The Loisetian art of never forgetting uses none of the 'localities,' 'keys,' 'pegs,' 'links,' or associations of MNEMONICS."—*Loisette*.

"I have never taught my system to a mnemonical teacher or author!"—*Loisette*.

DR. PICK'S SYSTEM.

"Pick's method is a thoroughly practicable one, and is now largely used. Loisette, rather curiously, is the only mnemonist who condemns Pick."—*Middleton*.

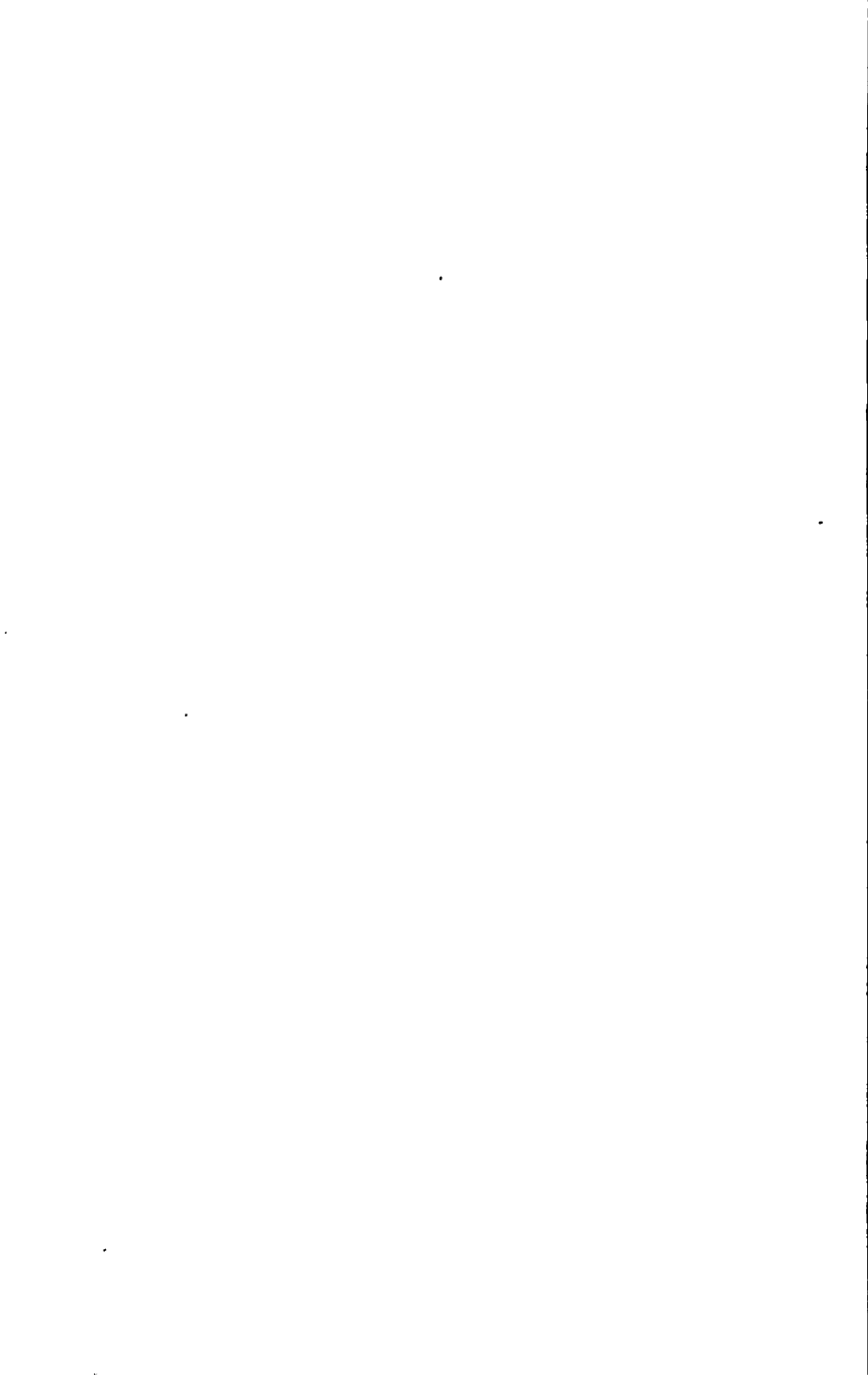
"It was while engaged in physiological studies at Prague, that Dr. Pick first systematized the art of memory, and he has been enabled to render that quality of the mind almost independent of physical organization."—*The Lancet, London, Nov. 10, 1860*.

Dr. Pick calls his own method "this practical system of MNEMONICS."

" . . . With a view of showing how a true association of ideas assisted the memory, he [Dr. Pick] applied a test to his audience, and asked them to associate the following ideas : Memory or remembrance, history, wars, revolutions, gunpowder, explosions, steam, railways, celerity, electric telegraph, Atlantic cable, America, cotton industry, England, progress, civilization, Chinese missionaries, church, Reformation, Germany, Gutenberg, printing, and newspapers. Having only once enumerated these ideas, he requested the audience to repeat them in their consecutive order, then backwards, and afterwards indiscriminately. This was done successfully, and the audience seemed to be surprised with their own proficiency."—From Report of Dr. Pick's lecture at OXFORD UNIVERSITY, *Morning Post, London, Nov. 25, 1859*.

CONTENTS.

	PAGE
PREFACE	5
INTRODUCTORY	7
LOISETTE'S CLAIMS	9
PHYSIOLOGICAL MEMORY	11
INTERROGATIVE ANALYSIS	12
LOISETTE COMPARED WITH ARISTOTLE, FAUVEL-GOURAUD, AND OTHERS	13
USE AND ABUSE OF MEMORY	17
DR. EDWARD PICK'S SYSTEM	18
SYLLABUS OF DR. PICK'S LECTURES	26
COMMENDATIONS OF DR. PICK'S SYSTEM (1853-1887)	27
LOISETTE SYSTEM:	
Part I. Recollective Analysis	29
Part II. Supplement to Recollective Analysis	58
Part III. Recollective Synthesis	86
Part IV. Predicating Correlation	116
Part V. The Instantaneous Gordian Knot	143
Part VI. The Certainty of Never Forgetting	169
APPENDIX TO LOISETTE SYSTEM	199
BIBLIOGRAPHY OF MNEMONICS (1825-1888)	207
PENETRALIA	217
MORE LIGHT,	221
INDEX	223



PREFACE.

THE so-called Loisetto System here presented, *complete*, has hitherto cost from FIVE to TWENTY-FIVE DOLLARS and the signing of a contract binding to secrecy in the penal sum of FIVE HUNDRED DOLLARS. If the system is worthless that fact should be made known. If it is all it claims to be, the whole world ought to have the benefit of it, and at last can have it, and at a price within the reach of the millions. Here it is, and the intelligent public can judge for themselves.

The contract signed by the writer is null and void, being obtained under false pretences as to what the system was, as set forth in the following pages.

Loisetto's alleged copyright is paralleled only by the plea of a defendant, charged with keeping a vicious dog, which had bitten the plaintiff : 1st. It couldn't have been his dog, because his dog was tied. 2d. It couldn't have been his dog, if he was not tied, because he hadn't any teeth. 3d. He hadn't any dog.

As to the copyright :

1st. Sets have been issued in this country without the word "copyright."

2d. Enquiry at the office of the Librarian of Congress elicits the information that, as the conditions of the copyright law have not been fulfilled, there is *no copyright*.

3d. The pamphlets were *first published in England*, hence the copyright here would be invalid though all the conditions had been complied with.

☞ Every student of the Loisetto System will confer a favor by sending to the publishers a postal card bearing his name and address.

WASHINGTON, D. C., June, 1888.

INTRODUCTORY.

It should be stated, by way of explanation, that the author has no interest in any Memory System whatsoever, and is actuated *solely* by that keen sense of justice and innate love of liberty, characteristic of every true American.

The history of the evolution of this volume may not be without interest. The coming of "Professor" Loisetto to Washington was preceded by vague rumors that the "Professor" was a "fraud." Nevertheless the writer decided to test his "unique and original system," with the determination, should it prove fraudulent, of thoroughly exposing his imposture. Every lecture was faithfully attended; and this was more than enough to awaken distrust of the "Professor," however great the value of his system. Evidence began to accumulate. The article "Memory" in Chambers' Cyclopedia contained the essential principle of his system. Dr. Holbrook's invaluable work "How to Strengthen the Memory," quoting copiously from Dr. Pick, furnished still further proof, and Dr. Pick's own work completed the chain of evidence.

It was determined to call a public meeting of all who had studied the Loisetto System, and entertain the assembled company by reading, in the presence of representatives of the Press, these interesting and significant articles, with many more quite as suggestive. The plan was endorsed with enthusiasm, by many of the most prominent citizens of Washington. Then, to add to the interest of the occasion, a printed copy of these articles was to be put into the hands of every member of the class. Finally, to render the exposure *complete*, the publication of the entire Loisetto System along with it was undertaken, and is now commended to the careful consideration of all interested in the cause of justice and fair play.

The author lays small claim to originality in this little work. He has scarcely done more than search out and connect the links in the chain of evidence. He would be the last to decry a system which has already proved of such value to many thousands, but if it has such merit, let honor be paid to whom honor is due.

Corrections of errors, and suggestions, will be gratefully received, and will be given due consideration for the next edition, soon to appear.

the laws of Inclusion, Exclusion, and Concurrence, *with infinitely greater ease and certainty* than it does any other mental acts. Another fact which I also discovered [in Dr. Pick's book], and which is of the most transcendent importance in *training and developing* the memory, is that the learning and reciting forwards and backwards of a series of words arranged in conformity to inclusion, exclusion, and concurrence, invariably strengthens the natural memory, in both its stages, to the highest degree.—*Loisette*, Part I., p. 46.

The mere publication of the "Loisette System" may of itself be deemed a sufficient exposure. When one devotes a large share of his energy to a sweeping denunciation of other men and other methods than his own, he is usually and justly set down, without further enquiry, as himself an impostor. But let not the *System* be lightly thrown aside as worthless, even though the *teacher* disgust every thoughtful mind. The arrogance, the egoism, the braggadocio of the charlatan is not "emblazoned on every page." Rubbish there is, it cannot be denied, but the patient and persistent seeker after hidden treasure will surely find grains of purest gold. If weary of the task and tempted to fairer fields, turn to the last pages of the little volume, read the words of commendation from eminent men who have proved its value; and you will be convinced that you have found a friend or a foe man worthy of your steel.

If the system is not original with Loisette, we submit that he has done his best to make it his. He speaks of it as "my System" 131 times, which is all that could reasonably be expected of him when we consider the number of pages in which it is simply impossible to bring it in. And, be it remembered, this does not include the frequent use of the phrases, "my Method," "my Discovery," "my Art," "my Device," etc. In this case we have a valuable illustration of the perfection of "the Art of Never Forgetting." Here "attention," as well as *intention*, was perfect to start with, and thus a "vivid first impression" was ensured; then the rule requiring "frequent repetition" was faithfully complied with. A careful study of the Loisette System will reveal the truth that any fact "once fixed in the mind" by this method is "fixed forever." Under these circumstances Loisette can hardly be blamed for claiming to be the originator, since we have found this to be the inevitable result of this infallible and invaluable system.

What matters it that another taught essentially the same system at least 35 years ago! He must have borrowed it from the "Professor!" Loisette claims, in his circulars, to have taught his system as early as 1866; which would naturally give him priority over one who published the same principles in 1862, in a *second* edition, while his lectures date back 10 or 15 years earlier!

An interesting comparison may be made between Loisette's lectures, formerly but five in number, and the Syllabus of Pick's lectures, p. 26.

It should also be borne in mind that Pick's book only pretends to give the *principles* which are the basis of his method, while the *practical application* is given only in his oral lectures.

Before reading what follows turn to page 26, and read what the press and eminent men had to say of Dr. Pick thirty-five years ago, and also the opinion to-day.

After a careful comparison has been made between Loisette's method and Dr. Pick's, special attention is called to Loisette's attack on Pick

(page 100) where, however, he does not venture to call him by name; but characterizes him contemptuously as "an Anglicised German" with the "sobriquet of Doctor." His flings are unusually becoming from an *Anglicized American* with the self-applied *sobriquet* of "Professor." Read the list of irregular verbs (page 23) and Dr. Pick's instructions in full; then you will be prepared to appreciate at its real value Loiset's criticism in the foot-note: "To remember the figures 51342 it would be easier, if the *precise order of the figures was not important*, to arrange them thus: 12345!!"

If a greater piece of imbecility has ever appeared in cold type, the discoverer will kindly forward it for publication. When one realizes how much Loiset is indebted to Dr. Pick for the very essence of his system, and compares the modest claims of the latter with the arrogant pretensions of the former, one cannot but feel that the use of such language as adorns the two pages mentioned is simply beneath contempt.

If the patience of the reader is not already exhausted, let him turn to Loiset's statement of the "errors of Psychologists," where will be found, to be sure, a few truisms, preceded by this note: "The following remarks are not to be read ~~except~~ by those who have studied Mental Science." The author has taken the liberty of correcting an obvious typographical error. Such a warning was certainly needed; for, otherwise, the few who succeeded in wading through these two pages would surely have been convinced that the brazen effrontery, the insolent presumption of such a man would make a bronze statue turn green with envy.

PHYSIOLOGICAL MEMORY.*

It might be interesting to enquire where "Professor" Loiset got his ideas of "Physiological Memory." As so much else has been found to emanate from Dr. Pick, let us see what he has to say.

"Modern psychology, respecting which almost all writers upon Mnemonics appear to have been strangely ignorant, has, with the aid derived from the prodigious progress of *physiological* science, diffused a new light upon the nature of the human mind. . . . The experiments made by Flourens and Hertwig, and which are amongst the most interesting in the annals of *physiological* research, prove that it [the memory] exists in the primitive nerves of the cerebrum; because, when these are removed, Memory disappears, together with the other mental and sensitive faculties.

"And hence it may likewise be inferred, that the psychological phenomena, throughout all their ramifications, are regulated by the influence of the brain. It is, therefore, evident that every circumstance or condition that influences the body, and especially the brain, is capable of influencing our mental faculties; and hence it is easily understood that physiologists and physicians, whether writing upon Mnemonics or treating patients whose memory is lost or defective, prescribe medicine and dietetic rules with a view to produce an effect upon the brain and through it upon the memory.

"It may be mentioned, however, that, in our reference to the brain as influencing the mental faculties, we intended only to show the connexion between PSYCHOLOGY and PHYSIOLOGY in regard to MEMORY."

* See Ribot: Diseases of Memory, from which Loiset got many of his "unique and original" ideas.

Further, in his prospectus he says :

"Dr. Pick having made Psychology his special study, has thereupon founded and evoked a helping agent, at once simple and natural, and capable of being brought instantly into active operation."

In view of these statements, the explanation of the origin of the term Physiological Memory is simple enough. After the memory has been properly cultivated by the Loisetian method, "the mind acts spontaneously, and without any exercise of the will, in accordance with the laws of Inclusion, Exclusion, and Concurrence." Thus the system got its name; and doubtless the "Professor" himself could not tell you where he got it if his life depended upon it. Who has the heart to blame him?

INTERROGATIVE ANALYSIS.

"My memory teaching includes *two distinct, unique, and original Systems*. The *first* is the one I have been teaching many years. This method uses Analysis and Synthesis to develop and build up the fundamental Associative Power, by awakening to its highest intensity the direct and immediate appreciation of *Inclusion, Exclusion, and Concurrence*. My *second System*, which I call *Interrogative Analysis*, reaches the same goal by a different route."—*Loisette, Part II., last page.*

Loisette here gives us the summary of his whole System. As to the originality of the *1st System*, as he calls it, comparison with the work of his predecessor, Dr. Pick, will effectually explode his claims. And as to his claim to originality in the use of the method of *Interrogative Analysis*, which he terms his *2d System*, it has been in use, and in the *identical form* in which it is used by Loisette, from time immemorial, by the most successful teachers; notably, by the great Reformer Melancthon (1497–1560), who applied it especially to the teaching of languages, and students flocked to him from all parts of Europe. While in use at the present time, to a greater or less extent, by many teachers, it has been especially revived in the so-called "Natural Method" of teaching modern languages.

The following should be read side by side with *Loisette, Pt. II., p. 80.*

Das Schaf musste von allen Tieren Vieles leiden. Da trat es vor (den) Zeus und bat, sein Elend zu mindern.

Wer musste leiden? *das Schaf*

Von *wem* musste das Schaf leiden? von *allen Tieren*

Was musste das Schaf, von allen Tieren leiden? *vieles*

Wer trat vor? *das Schaf*.

Vor *wem* trat das Schaf? vor *Zeus*.

Wer bat? *das Schaf* bat.

Was bat der Schaf? *sein Elend zu mindern.*

Wen bat das Schaf sein Elend zu mindern? den *Zeus*.

Heness: Der neue Leitfaden (Holt. N. Y.).

Trans.: The sheep must suffer much from all beasts. Therefore it went before Zeus and begged him to relieve his misery.

Who must suffer? The *sheep*, etc.

From *whom* must the sheep suffer? From *all beasts*, etc.

What must the sheep suffer from all beasts? *Much*, etc.

Who went before? The *sheep*.

Before *whom* did the sheep go? Before *Zeus*.

What did the sheep beg? to *relieve his misery*.

Whom did the sheep beg to relieve his misery? *Zeus*.

LOISETTE, 1888.

Mother Day will buy any shawl.
Mother Day will buy any shawl.
 Mother *Day* will buy any shawl.
 Mother Day *will* buy any shawl.
 Mother Day will *buy* any shawl.
 Mother Day will buy *any* shawl.
 Mother Day will buy any *shawl*.

ZACHOS, 1852.

Will you go to town to-morrow ?
Will you go to town to-morrow ?
 Will *you* go to town to-morrow ?
 Will you go to town to-morrow ?
 Will you go *to* town to-morrow ?
 Will you go to *town* to-morrow ?
 Will you go to town *to-morrow* ?

The preceding sentences are quoted, italics and all, from page 180, "*Introductory Lessons in Reading and Elocution*," by Parker and Zachos, published by A. S. Barnes & Co., New York, in 1852.

LAWS OF MEMORY.

Compare Loisetete's three laws of recollective analysis (pages 82 and 83) with the following, and also with Dr. Pick's (page 19):

"Aristotle (384-322 B.C.), the earliest writer who attempts any classification of the laws of suggestion, distinctly includes under the law of co-adjacency whatever stands as *parts* of the same *whole*; as, e.g., parts of the same building, traits of the same character, *species* of the same *genus*, the sign and the thing signified, different *wholes* of the same *part*, correlate terms, as the *abstract* and *concrete*," etc., etc.—*Haven: Mental Philosophy*. 1857.

"The earliest known attempt to lay down the laws whereby thought succeeds to thought, is that contained in Aristotle's treatise on memory. He enumerates three different principles of mental resuscitation, viz., similarity [inclusion], contrariety [exclusion], and co-adjacency [concurrence]. He has been followed by most other philosophers as regards all the three principles."—*Chambers' Cyclopaedia*, Article *Association of Ideas*.

"THE LAWS OF ASSOCIATION. . . . Accordingly it has been established that thoughts are associated, that is, are able to excite each other: 1st, If co-existent [concurrent], or immediately successive, in time; 2d, if their objects are conterminous or adjoining in space; 3d, if they hold dependence to each other of cause and effect, or of mean and end, or of *whole* and *part*; 4th, if they stand in relation either in contrast [exclusion] or of similarity [inclusion]; 5th, if they are the operations of the same power, or of different powers conversant about the same object; 6th, if their objects are the sign and the signified; or 7th, even if their objects are accidentally denoted by the *same sound*."—*Bowen*. 1861.

MASTERING THE CONTENTS OF ANY BOOK.

On the method of mastering the contents of any book at one reading, compare Loisetete (page 183) with the following:

"When we read a book on a subject already familiar to us, we can reproduce the entire work, at the expense of labor requisite to remember the additions it makes to our previous stock of knowledge."—*Bain: Senses and the Intellect*," p. 538, London, 1855.

"To aid the retention of the contents of a book, the chapters must be associated together by selecting the primary or leading ideas of each;

and to each of the latter, again, a few further suggestive ideas in the chapter may be joined. The number of ideas that should be selected from each chapter will depend on the nature of the subject, the degree of sequence or relationship between the parts, and the completeness with which it is desired to be remembered."—*Lyon Williams: Science of Memory*, 1866, pages 130, 131.

KNIGHT'S TOUR.

Does the use of the following key words and sentences for the solution of the Knight's Tour differ essentially in principle from the method of Loisetle? (p. 68) Or are they correlated with greater difficulty?

"Sad deeds will outlaw many a rogue.
 Churlly riches lose a mellow heart.
 Unjoyous boys meet music nowhere.
 Amiable judge unwarily may sneeze.
 A meek nun enough may find homage.
 Would ebony ladies wiser dears have.
 No merry soul will show a dull dough look.
 Irony libel may shame a hero famed.
 Dutch sage would know a Sunday gamer.
 Robber may live alone, rich, unhappy.
 Rare, new cameo modify."

—*Fauvel-Gouraud*, 1845.

"Hat, tide, hill, dale, moon, rock, jewry, lawyer.
 Cheese, less, mill, rat, inch, pie.
 Home, time, key, honor, mop, lash.
 John, rule, miss, niece, make, none, enough.
 Move, not, much, top, nail.
 Does, your, dear, wife, name, rose, lily.
 Shoot, wild, elk.
 Run, leap, lame, Jim.
 Rough, maid, teach, joy.
 Dine, honey, dig, merry.
 Europe, army, love, lion, Irish, nap.
 Horror, Yankee, mummy, doff, hat."

—*Miller*.

RATIO OF CIRCUMFERENCE TO DIAMETER.

FAUVEL-GOURAUD. 1845. (2)

Hero. My dear dolly be no chilly.
Wand. My love, I beg ye be my nymph.
Tooth. Rich honey charms and moves a man.
Thee. A cupola seen off with a fiery top.
Fort. A cottage bamboo, a poem, or a glee.
Fife. A tassel, vain, or sappy grape.
Sexton. A rare Albino, musky and fat.
Savannah. Jersey, Geneva, Genoa, or Seva.
Hate. A boy or peevish knave somehow rough.
Ninus. An unholy marine editing a siege.
Den. A copy faint through rough and savage.
Elephant. An old woman, a fine miss, or a showy Jew.
12-Pounder. A heroic Sepoy may fire where he chooses.
Thirteenth Guest. An able wholesale and heavy unanimity.
Fortune. A hackney lame or lubber's feet.
Fife of Tin. No very heavy sin.

A. LOISETTE.

Cypher. Mother Day will buy any shawl.
Wonder. My love, pick up my new muff.
Tool. A Russian jeer may move a woman.
Treat. Cables enough for Utopia.
Forearm. Get a cheap ham pie by my cooley.
File. The slave knows a bigger ape.
Sick. I rarely hop on my sick foot.
Severn. Cheer a sage in a fashion safe.
Ats. A baby fish now views my wharf.
Nino. Annually Mary Ann did kiss a jay.
Utensil. A cabby found a rough savage.
Leaven. A low dumb knave knew a message showy.
Dosen. Argus up my fire rushes.
Threaten. A bee will lose life in enmity.
4th Dean. A canal may well appear swift.
Fife Thin. Never have a scene.

(From *Appleby*.)

In later editions of *Loisette* the sixteen pegs, "cypher" to "fife thin" have been dispensed with and the sentences have to be connected or "correlated" by other means. The exercise has been now extended to 209 figures.

HEIGHT OF MOUNTAINS.

	<i>Loisette.</i>	<i>Others.</i>
Mount Blanc.....	<i>Idling half a day.</i>	<i>Austere visage.*</i>
Mount Brown.....	<i>Whitish sauces.</i>	<i>Wood ashes.†</i>
Popocatepetl.....	<i>Take a weak wife home.</i>	<i>A pope's hat—Hat [of] a king.†</i>
Sorata.....	<i>Indian effigy.</i>	<i>A new lawyer.†</i>
Jungfrau.....	<i>The Mohicans.</i>	<i>A young fowl—a tame hawk.†</i>

LATITUDE AND LONGITUDE.

	<i>Loisette.</i>	<i>Others.</i>
New York.....	<i>A horse line; scheme all happy.</i>	<i>A new oak—Hard hickory.†</i>
Rio Janeiro.....	<i>Sea onion healer; swarm by.</i>	<i>A real joiner—Any new room.*</i>
Sydney.....	<i>Stimoom light; dull-eyed idiot.</i>	<i>Sidney Smith—Merry tales.†</i>

INFALLIBLE MEMORY ALMANAC.

<i>Stokes, 1874.</i>	(5)	<i>Loisette, 1884.</i>
January—Row—tide—dive—Nile.		Hero taught Davy Noel.
February—A head off a tall nun.		To see a tall Ionian.
March—A head off a tall nun nip.		Do have dull Nanny Nebo.
April—All down stoop inch.		Will Dan daub a niche.
May—May tease a duck owner mad.		My days take inner night.
June—I go—a tear—a nod—enough.		A hack tore a naughty knave.
July—All down stoop inch.		Will Dan daub a niche.
August—A new pie dish—name Miss.		Now boy touch a numb mouse.
September—Show them a nice nag.		Ash Adam knows a knack.
October—Row—tide—dive—Nile.		Hero taught Davy Noel.
November—A head off a tall nun nip.		Do have dull Nanny Nebo.
December—Show them a nice nag.		Ash Adam knows a knack.

(From *Appleby*.)

HOMOPHONES.

<i>Loisette.</i>	<i>Other Mnemonists.</i>	<i>Loisette.</i>	<i>Other Mnemonists.</i>
Wit.	Wit.	Hack.	Hack.
Wine.	Wine.	Hive.	Have.
Head.	Hate.	Etch.	Dish.
Even.	Even.	Merry.	Merry.
Hen.	Hen.	Bet.	Lazy Pet.
Reed.	Red.	Jet.	Jet.
Joiner.	John.	Cut.	Cat.
Hem.	Ham.	Protector.	Common People.
Eddy.	Died.	Can.	Chain.
Eden.	Deny.	June.	Join.
Emporium.	Deem.	Whim.	Whim.
Ruin.	Ruin.	Antic.	Hand.
Hair.	Hare.	Goat.	Got.
Hall.	Hall.	Gun.	Gun.
Hush.	Hush.	Game.	Game.
Ear.	Dear.	Gear.	Gore.
Eel.	Duel.	War.	War.
Room.	Room.	Victory.	Victoriously.

(From *Appleby*.)

HOMOPHONES FOR KINGS OF ENGLAND.

	<i>Fauvel-Gouraud, 1845.</i>	<i>Loisette.</i>
William I.	Witty (Conqueror).	Wit.
William II. (Rufus.)	Wine (rough).	Wine.
William III.	Whim.	Whim.
William IV.	Wire.	War.
George I.	Geode.	Gout.
George II.	Gin.	Gun.
George III.	Gem.	Game.
George IV.	Jury.	Gear.
Annie.	Annuary.	Antic.
Mary.	Merriness.	Merry.
Victoria.	Victory.	Victory.
Richard I.	*Ride.	Reed.
Richard II.	*Ruin.	Ruin.
Richard III.	*Room.	Rhyme.

HOW TO REMEMBER NAMES.

See Loisette, page 93.

Associate the name to be remembered with the looks of the person, or any peculiarity he may possess. Form a connection between these . . . and on seeing him again, his features will recall the name. The names of places may be remembered by associating anything striking or peculiar in connection with them, with the name.—*Haney*: "*Art of Memory*," 1866, page 45. .

HISTORICAL EVENTS.

See Loisette, page 100.

Invention of Letters, 1831.....	<i>Divine Idea.</i>
Passage of the Red Sea, 1491.....	<i>Watery Bed.</i>
Argonautic Expedition, 1263.....	<i>Hidden Gem.</i>
Destruction of Troy, 1184.....	<i>Hot wood Fire.</i>
Battle of Marathon, 490.....	<i>Repose.</i>
Battle of Thermopylæ, 480.....	<i>Refuse.</i>
First Sun-dial, 293.....	<i>Sun-beam.</i>
Invention of Paper, 170.....	<i>White Wax.</i>
First closing of Temple of Janus, 235.....	<i>Anomaly.</i>
Second closing of Temple of Janus, 29.....	<i>Nap.</i>
Battle of Salamis, 480.....	<i>Service.</i>
Destruction of Carthage, 146.....	<i>Outrage.</i>
Battle of Pharsalia, 48.....	<i>Rough.</i>
Battle of Philippi, 42.....	<i>Ruin.</i>
Death and age of Cæsar, 44-56.....	<i>Rare (eulogy).</i>

—*Fauvel-Gouraud, 1845.*

LOISETTE (1888) AND MILES (1848).

	LOISETTE.	MILES.
Lisbon earthquake, 1755.....	<i>talk lowly</i>	<i>gully hole</i>
Mt. Sorata, 21,286.....	<i>uneaten fish</i>	<i>a new lawyer</i>
Mt. Ararat, 17,260.....	<i>attack no Jews</i>	<i>a donkey</i>
Founding of Rome, 753.....	<i>climb</i>	<i>clime</i>

* Homophone for Henry, last consonant used instead of first.

First Printing in Eng., 1471, 1474.....	<i>tract</i>	<i>a worker</i>
Council of Trent, 1545.....	<i>daily roll</i>	<i>lawyerly</i>
America discovered, 1492.....	<i>turpin</i>	<i>terrapin</i>
Mariner's Compass inv., 1269.....	<i>tiny shape</i>	<i>new shape*</i>
Mesmerism disc., 1788.....	<i>to give off</i>	<i>qui vive</i>
Miss., length of.....	<i>warm oven</i>	<i>sea room</i>
Nile, " ".....	<i>wordy essays</i>	<i>salmon</i>
Ohio, " ".....	<i>town jail</i>	<i>dry</i>
Seine, " ".....	<i>argosy</i>	<i>whale</i>
Thames, " ".....	<i>annals</i>	<i>Seine</i>
Ben Nevis, height of.....	<i>wear your sash</i>	<i>warrior</i>
	<i>birth death</i>	<i>death age</i>
Napoleon.....	<i>took ship, divinity</i>	<i>divine, Italian*</i>

It could hardly be expected that the figures for the heights of mountains, length of rivers, latitude and longitude, etc., as given by writers of 40 years ago, would agree exactly with those now accepted as correct. They serve however to illustrate the principle.

All the words used by Loisetle, in the whole System, to translate figures into words, excepting only about half a dozen, are to be found in the figure dictionaries of Miles and Fauvel-Gouraud, one or both.

There is scarce anything to be found in Loisetle's System which cannot, both in principle and practice, be paralleled in one or another System of Mnemonics. This successful use of the ideas of others side by side with such presumptuous claims to originality can only be explained by the requirement of secrecy under a heavy penalty, and by the fact that the books of Pick, Miles, and Fauvel-Gouraud have long been out of print, the most recent of them some 15 years.

Had "Professor" Loisetle been content with claiming that his system included all the best methods employed by others, but in an improved form, few, perhaps, would have ventured to question his claims.

USE AND ABUSE OF MEMORY.

Immediately to repeat a multitude of names or words once repeated before, I esteem no more than rope dancing, antic postures, and feats of activity, and indeed they are nearly the same thing, the one being the abuse of the bodily, as the other is of the mental, powers; and though they may cause admiration they cannot be highly esteemed.—*Lord Bacon.*

Once being obliged to keep my eyes bandaged for a fortnight, and to rest my brain from serious work at the same time, I tested these systems, learning by their aid columns of logarithms, chronological tables, numbers up to the 300th decimal, and so forth, and found that all these acrobatic feats by which the memory teachers astonish their hearers are easy enough if a man will but give his mind to it, to the neglect of more important things.—*John Fretwell, quoted by Dr. Holbrook.*

Arbitrary arrangements to aid in recalling dates, words, and facts, which have no natural connection, are occasionally of use for a time;

* Fauvel-Gouraud, 1845.

but natural connections are more lasting, and are on every account to be preferred when attainable.—*Middleton*.

The powers of memory or acquisition may be greatly economised, but they cannot be increased as a whole. The total plastic force of each constitution is a limited quantity, or, if increasable it is at the expense of some other power of the system.

A man may push acquisition to the detriment of other intellectual powers, as invention; or of powers not intellectual, as susceptibility to emotion; and, lastly, of the physical energies, from which it is possible that nourishment may be unduly withdrawn.—*Bain*.

It is a fact that you cannot go on storing the memory forever.

The extent of possible acquisition is great, and even marvellous, and implies an enormous extent and complication of the physical organ, the brain, which has, somehow or other, to provide a distinct track of nervous communication for every distinct acquisition. Yet this organ has its limit, which is very various in different individuals. Although acquirement may not stop till extreme old age, yet the available total does not increase, and may even decline long before the end of life, the new displacing the old.—*Bain*.

A strong mental grip not passively receiving impressions, but seizing those that are worth keeping and neglecting the rest, knowing also what to forget, is the great characteristic of a good memory.—*John Fretwell, quoted by Dr. Holbrook*.

All systems of mnemonics utilize this principle of association in the culture of the recollective powers. Their aim is the endeavor to instil, by one means or another, the habit of linking together those thoughts that are naturally related. The more easily this is accomplished, the more readily does the memory become available for its work.
* * * * We do not require artificial links when, as it seems to me, nature has, in the majority of cases supplied natural ones in the ordinary associations of the objects we think about.—*Dr. Andrew Wilson*.

The habit of correct association—that is, connecting facts in the mind according to their true relations, and to the manner in which they tend to illustrate each other . . . is one of the principal means of improving the memory, particularly that kind of memory which is an essential quality of a cultivated mind—namely, that which is founded not upon incidental connections, but on true and important relations.—*Dr. Abercrombie*.

DR. EDWARD PICK'S SYSTEM.

Laws Governing the Reproduction of Ideas.

“The most ancient philosophers, including Aristotle, have laid down laws and principles respecting the reproduction of ideas. These laws and principles are based upon experience and observation, and are the following :

1. The law of analogy.
2. The law of opposition.
3. The law of co-existence.
4. The law of succession.

"1. ANALOGY.—Analogous ideas reproduce each other. Analogous ideas are those which have one or more qualities in common; for example, *tree* and *branch*. If these be analyzed, it will be found that all the qualities or attributes of the latter are contained in [*inclusion*] the former.

"2. OPPOSITION.—Opposite ideas recall each other. Those ideas are termed opposite which have one or more qualities in common, but which at the same time contain qualities . . . which exclude [*exclusion*] or oppose each other.

"3. CO-EXISTENCE. [*Concurrence*.]—Ideas which at some former period have been in the mind at one and the same time, recall each other.

ON THE IMPROVEMENT OF MEMORY.

"Probably the main defect of all mnemonic systems, from Simonides, who is commonly reported to have been the inventor of Mnemonics, downward, is, that not one of the numerous writers on the subject has fully studied the nature of the Memory, and based his system upon that. Had this been done, much difficulty and confusion would have been avoided, and the system would have attained greater perfection before now. We propose, therefore, to endeavor to remedy this defect, taking for our starting point what has just been said about the faculty and functions of Memory. In this endeavor our principal task will be to show how Memory can be improved and strengthened by the use of facilities arising from the true nature of the mind; and consequently on a natural system, and in a natural manner.

"The surest and most effectual way to ensure an easy and accurate reproduction of ideas is to deal with the *first impression*; that is to say, to impart to it strength and vivacity. If this be done, the process of reproduction will accomplish itself with little or no effort. Now, experience teaches us that it is quite in our own power to greatly strengthen the original impressions. One of the most familiar modes, and one of those most in use, is ATTENTION. It need scarcely be remarked, that if attention has been paid to any object or subject the mind will receive a more powerful original impression than if we had been absent or inattentive.

ASSOCIATION OF IDEAS. a. ANALOGOUS OR OPPOSITE.

"The consideration next arises as to the most effectual means of forcing or fixing our attention, so as to produce a vivid and strong impression. Such means will be found to consist in COMPARISON.

"With respect to comparison itself, a few explanatory remarks may be useful. We can only compare those ideas with one another which have some connection, that is to say, analogous or opposite ideas. When we thus compare two ideas, we search out and place side by side the qualities which they possess in common, and those on the other hand, by which they are distinguished from each other. Now, this operation involves an effort of the mind, and produces an attention which inevitably strengthens the impression. And if at a subsequent period either one of the two ideas which have thus been compared and analysed presents itself to the mind, it will recall the other immediately and distinctly.

"From this it follows, that if there be two ideas which have any relation or analogy with each other, and which it is desired to retain in the mind, it is only necessary to compare them. The attention required by this act of comparison is sufficient to ensure their mutual and almost simultaneous reproduction; inasmuch as when one presents itself it will recall the other.

"Now, if there be a series of such analogous or opposite ideas, which it is desired to retain by heart, the rule just described still holds good, and the task will be found easy if set about with care and deliberation. We shall here merely compare the first idea with the second, the second with the third, and so on; no more than two ideas, however, being taken up at the same time, without paying any attention to the preceding or the succeeding ideas. This rule must be rigidly attended to, in order to avoid confusion and perplexity. By this means the operation will always continue simple; there will be always two ideas, and only two, to compare at one and the same time, notwithstanding the length and number of the whole series. The reproduction of the whole is, therefore, the more certain; while, at the same time, the first idea will recall but the second, the second but the third, the third only the fourth, and so on in the consecutive series throughout. Thus none will fail, and the ideas will occur in order whenever it is desired to recall them.

EXAMPLE.

"As an example and practical illustration of the foregoing remarks, and a test of the mode of mental exercise suggested, we may compare the following ideas; but we must take care to confine our attention, from step to step, to the two ideas which we have to compare, without paying attention at the time either to those which precede or those which follow them.

England	navigation	peace	tranquillity
navigation	steam	tranquillity	silence
steam	railway	silence	meditation
railway	telegraph	meditation	faith
telegraph	electricity	faith	honesty
electricity	thunder	honesty	merchant
thunder	storm	merchant	India
storm	blow	India	hot
blow	windpipe	hot	summer
windpipe	pipe	summer	vegetation
pipe	music	vegetation	rock
music	harmony	rock	mountain
harmony	alliance	mountain	Switzerland
alliance	peace	Switzerland	travel

"Here, then, is a chain of ideas to be associated link by link so as to be capable of being recalled to the mind whenever it is desired to do so. Now, if we have taken care, in going through the list, always to compare only two ideas together, or at the same time, without for the moment paying any attention to the rest, the reader is requested to try whether he knows the list sufficiently well to go through it in the above order. If he has paid sufficient attention to, and distinctly understood, the simple principle and method of practice which has been laid down, he will be able to do so. When the first word or idea is taken, it will

immediately reproduce the second, the second will reproduce the third, and so on, with astonishing facility, through the series, which, with diligence and intelligence, may be extended to almost any length. But this is not all. Not only can all the ideas be recalled by going on consecutively from the beginning; but if any one of them be taken, all the others can be recalled when one has adequate experience in this practical system of mnemonics. Again, if, instead of beginning with the first word, the student begins with the last, and thus proceeds inversely, he will find that he can remember and recite the words or ideas with equal facility. The cause of this facility and certainty of result is, that no more than two words have been compared in the mind at the same moment. And thus, as the first can only recall the second, and the second the third, and so on, none can fail. And again inversely, the thirtieth will recall the twenty-ninth, the twenty-ninth will recall the twenty-eighth, until all the ideas have been recalled.

"We cannot too strongly insist on the importance of completely isolating each couple of ideas at the moment of comparing them, and confining our attention solely to them until the comparison be made throughout the series. An essential advantage of such isolation is, that it prevents obscurity and perplexity; the mind is not overloaded, because the difficulty of the task does not increase with the number of ideas, there never being more than two to compare at one and the same moment.

"A very usual recommendation made by some writers on mnemonics is to learn a series of words by heart, or commit them to memory, by combining them together. But it should be considered that a combination of this kind is effected, not by reflection, but by imagination, which is a very different thing. To take an example. This process of combining ideas by imagination, applied to the foregoing series, would take place in this way: England is the country of navigation, which is performed by the aid of steam; steam impels locomotives upon railways, which railways possess telegraphs, which telegraphs are worked by electricity, etc., etc. But this mode of combining ideas can never perfectly attain the desired result, because it contains the inherent defect of there being no intrinsic necessity or certainty that the primitive impression is strengthened; whilst, on the contrary, in a simple isolated comparison of two ideas, there is a complete certainty of that effect being produced. Moreover, in this process of imaginary combination, the more ideas there are to be combined the more difficult and confused becomes the task; which objection is not applicable to the system of comparing, by reflection, two isolated ideas at a time before passing to any further comparison.

ASSOCIATION OF IDEAS. *b.* NEITHER ANALOGOUS NOR OPPOSITE.

"When we desire to retain or to insure the power of recalling two ideas which are neither analogous nor opposite, we find that they cannot be combined directly. But the object can be accomplished in an indirect manner.

"This will be readily apparent. Each idea has some relation with a great number of other ideas. We must look amongst the ideas connected with those two which we desire to retain, for the purpose of finding points of comparison. For example: If we have to compare

or combine *paper* and *youth*, we must look for one or more ideas which by their insertion will establish a chain of relative or connecting ideas between the two which are to be combined. This process is, in some respects, an arbitrary one; and each particular person will establish his own chain of connecting links, according to his tastes or experience. Thus, one will say that *paper* can be compared with *white color*, this with *pure*, and pure with *youth*. Another will work out the combination in this way: *paper—engine—force—youth*. Another will compare: *paper—book—imagination—youth*. Thus the process of combination will vary with different persons; but in every case the comparison will be found easy; and such comparison once established, the idea of *paper* will, by means of either of those processes of thought so gone through, always recall that of *youth*. There are different ideas, which have been so often present together in the mind, that they recall each other instantly, e.g., *steam* and *boat*, *boy* and *man*, *black* and *white*, *light* and *dark*, etc. In these cases no intermediate ideas are required.

By this means a combination, sufficient to insure the power of recalling any two given ideas, only one being presented to the mind, can always be obtained. It is, no doubt, desirable that the combination of two different ideas should be made by only one, but, at all events, by as few intermediate ideas as possible. Yet the number of these intermediate combining ideas does not materially prejudice the facility of their reproduction, which, indeed, often takes place with such rapidity that we are scarcely conscious of the presence or nature of the intermediate idea, so quickly does it come upon us. This is especially the case with ideas which are familiar to us.

As an illustration of these remarks, let us suppose that we are to retain the following series of ideas: *Garden*, *hair*, *watchman*, *philosophy*, *copper*, *cloth*, *workman*, *apple*, *eclipse*, *dream*, *coal*, *balloon*, *microscope*, *idleness*, *silk*, *fountain*, *coast*, *watch*, *snow*, etc.

We can combine the ideas in this manner: *Garden*, plant, *hair* of plant—*hair*; *hair*, bonnet, *watchman*;—*watchman*, wake, study—*philosophy*; *philosophy*, chemistry—*copper*; *copper*, cover—*cloth*; *cloth*, tailor—*workman*; *workman*, gardener, garden—*apple*; *apple*, earth or moon—*eclipse*; *eclipse*, dark, night—*dream*; *dream*, nightmare, suffocation—*coal*; *coal*, gas—*balloon*; *balloon*, distance—*microscope*; *microscope*, study, labor—*idleness*; *idleness*, hot, thirst—*fountain*; *fountain*, dying—*silk*; *silk*, China, sea—*coast*; *coast*, navigation, compass—*watch*; *watch*, Switzerland—*snow*, etc.

Thus, by the exercise of ordinary ingenuity and attention (in itself a beneficial mental exercise), combinations can be effected to any extent.

APPLICATION OF THE ABOVE RULES.

The process of the mental operation just described for the reproduction of a series, or of several series of ideas, can be applied in every case, where any series of words are to be retained in the memory; and the object can be accomplished, with certain differences of detail, according to different circumstances. For instance: In some cases it is necessary to know and retain a series of words in precisely the same order in which they were given; in other cases, the order of the words is not of essential importance.

"In natural history, where there are particular and distinct classifications of animals, plants and other objects, it is necessary to observe the order of the words as given; but there are many cases in which it is not so necessary.

"In cases of the latter kind, what we have to do is to arrange the ideas ourselves, so as always to combine and take together those ideas which have any relation to each other, and which, consequently, can be compared directly.

"To make this remark clear, it will be advisable to look over any ordinary grammar—the French grammar, for instance. In the grammar, under a general rule, we often find a series of words forming an exception to the rule, and which it is required to retain in the memory. Here it is, of course, essential to know all the words forming the exception; but the *order* in which they are given is of no importance.

"Sometimes the exceptional words or deviations from the rule are arranged in verses, and sometimes in alphabetical order; these arrangements being adopted for the purpose of aiding their retention by the memory.

"Now, if instead of adopting the metrical or alphabetical plan, we arrange the series so as to call in reflection, *i.e.*, so as to take together the words and ideas which have any natural relation, it will be found that they will become perfectly familiar, and that the mind will retain them after only two or three attentive perusals.

"The French irregular verbs, for instance, with their English significations, are given in the French grammar as follow :

acquérir, *to acquire.*
 aller, *to go.*
 s'en aller, *to go away.*
 s'asseoir, *to sit down.*
 battre, *to beat.*
 boire, *to drink.*
 bouillir, *to boil.*
 conclure, *to conclude.*
 confire, *to pickle.*
 condre, *to sew.*
 courir, *to run.*
 croire, *to believe.*
 cueillir, *to gather.*
 dire, *to say.*
 écrire, *to write.*
 envoyer, *to send.*
 fuir, *to shun.*
 haïr, *to hate.*
 lire, *to read.*
 mettre, *to put.*
 moudre, *to grind.*

mourir, *to die.*
 mouvoir, *to move.*
 naître, *to be born.*
 ouvrir, *to open.*
 plaire, *to please.*
 pouvoir, *to be able.*
 prendre, *to take.*
 revêtir, *to bestow.*
 résoudre, *to dissolve.*
 rire, *to laugh.*
 rompre, *to break.*
 savoir, *to know.*
 suivre, *to follow.*
 traire, *to milk.*
 tressaillir, *to startle.*
 vaincre, *to vanquish.*
 valoir, *to be worth.*
 vivre, *to live.*
 voir, *to see.*
 vouloir, *to be willing.*

"Now the object of the scholar, in reference to the above words, is to be able always to recognize them as exceptions to the general rule, and to do this without reference to the order in which they occur. For this purpose, we have but to select sets of two words bearing analogy with each other, and to compare, *viz.*,

sew	with	sit down	send	with	follow
sit down	"	move	follow	"	run
move	"	go	run	"	shun
go	"	go away	shun	"	break
go away	"	send	break	"	open

open	with	put	read	with	write
put	"	bestow	write	"	see
bestow	"	take	see	"	be able
take	"	acquire	be able	"	know
acquire	"	vanquish	know	"	conclude
vanquish	"	beat	conclude	"	be willing
beat	"	startle	be willing	"	believe
startle	"	die	believe	"	be worth
die	"	live	be worth	"	gather
live	"	be born	gather	"	drink
be born	"	laugh	drink	"	milk
laugh	"	please	milk	"	boil
please	"	hate	boil	"	pickle
hate	"	say (calumny)	pickle	"	dissolve
say	"	read			

"Now if this series of words be studied in the manner which we have recommended, and of which the list last given furnishes an example, namely, by comparing, or bringing before the mind at the same time, only two words, and these the ones which have a definite affinity, one or two attentive perusals will suffice to fix them in the mind for ever. But if an attempt is made to learn such a series by heart in the ordinary mode, that is to say, by repeating it over and over, without any reference to analogy, until by such repetition it remains in the mind, not only will vastly longer time be expended in the task, but the great probability is, that the whole of them will never be known perfectly, for there is no principle of connection. And should occasion arise to make use of any one of the words, it will often be necessary to repeat the whole list in order to ascertain whether the particular word needed be amongst the exceptions. This is a great difficulty and discouragement to students. But if the task of retaining or committing the words to the mind has been effected in the manner indicated in the example, not only is their reproduction or recall at any future time rendered more certain, but on any one of the words or ideas occurring, it will immediately recall the others; and there can be no doubt or uncertainty; for if a given word is not comprised in a series (as of the exceptional words just cited), it is at once known that it is not amenable to the observations which apply to that series; for instance, in the particular example given, that it does not form one of the exceptions to the general rule.

"It is here presumed that the meaning of the French words is known, or, in other words, that they are ideas available to the reader. Words belonging to foreign languages not known to us, or, indeed, any words of which we do not know the meaning, are, of course, no more than mere sounds, so far as we are concerned.

"If a series of words has to be retained in the order in which they are presented, that is to say, if we cannot group together those words which have a connection, then we have only to compare the first with the second, the second with the third, without any further regard to the first, and so on. The comparison will be made directly where any connection exists, indirectly where different ideas are given, according to the above rules."

"The following arrangement will facilitate the acquirement of the irregular verbs of the German language. They have been divided into five divisions, according to the difference of the vowels they take in the imperfect tense.

1. Verbs that take "a" in the imperfect, and "i" in the imperative :

to scold, schelten.	to forget, vergessen.	to sit, sitzen.
to speak, sprechen.	to recollect, sich besinnen.	to spin, spinnen.
to command, befehlen.	to meditate, sinnē.	to measure, messen.
to press, dringen.	to read, lesen.	to be worth, gelten.
to compel, zwingen.	to see, sehen.	to beg, bitten.
to enlist, werben.	to mistake, verstehen.	to recover, genesen.
to bind, binden.	to be frightened, erschrecken.	to eat, essen.
to wind, winden.		to devour, fressen.
to wrestle, ringen.	to pick, stechen.	to drink, trinken.
to swing, schwingen.	to burn, brennen.	to swallow, schlucken.
to throw, werfen.	to stink, stinken.	to conceal, bergen.
to jump, springen.	to perceive, empfinden.	to steal, stehlen.
to burst, bersten.	to help, helfen.	to break, brechen.
to flow, rinne.	to give, geben.	to sound, klingen.
to swim, schwimmen.	to take, nehmen.	to sing, singen.
to lie, liegen.	to bring, bringen.	to do, thun.
to sink, sinken.	to find, finden.	to happen, geschehen.
to die, sterben.	to gain, gewinnen.	to begin, beginnen.
to spoil, verderben.	to hit, treffen.	to bring forth, gebaeren.
to decrease, schwinden.	to stick, stecken.	to come, kommen.
to disappear, verschwinden.	to stand, stehen.	to tread, treten.

2. Verbs which take "ie" in the imperfect, keeping the radical vowel in the imperative :

to lend, leihen.	to rub, reiben.	to write, schreiben.
to appear, scheinen.	to hew, hauen.	to pardon, verzeihen.
to sleep, schlafen.	to fall, fallen.	to praise, preisen.
to be silent, schweigen.	to go, gehen.	to please, gefallen.
to advise, raten.	to run, laufen.	to thrive, gedeihen.
to show, weisen.	to drive, treiben.	to ascend, steigen.
to bid, heissen.	to catch, fangen.	to remain, bleiben.
to call, rufen.	to hold, halten.	to hang, haengen.
to cry, schreien.	to leave, lassen.	to roast, braten.
to blow, blasen.	to avoid, meiden.	to spit, speien.
to push, stossen.	to separate, scheiden.	to snow, schneien.

3. Verbs which take "i" in the imperfect, and double the last consonant of the root :

to seize, zu gras, greifen.	to glide, gleiten.	to split, schleisen.
to pinch, kneifen.	to sneak, schleichen.	to cut, schneiden.
to bite, beissen.	to step, schreiten.	to sharpen, schleifen.
to suffer, leiden.	to ride on horseback, reiten.	to whistle, pfeifen.
to fade, verbleichen.	to combat, streiten.	to study, sich befeissen.
to yield, weichen.	to strike, streichen.	to be like, gleichen.

4. Verbs which take "o" in the imperfect :

to command, gebieten.	to fight, fechten.	to boil, sieden.
to be able, koennen.	to shoot, schiessen.	to melt, schmelzen.
to consider, erwägen.	to resound, erschallen.	to glimmer, glimmen.
to weigh, weigen.	to thresh, dreschen.	to freeze, frieren.
to raise, heben.	to fly, fliegen.	to nurse, pflegen.
to move, bewegen.	to flee, fliehen.	to loose, verlieren.
to push, schieben.	to sprout, spriessen.	to grieve, verdrissen.
to draw, ziehen.	to drip, tröpfen.	to swear, schwören.
to bend, biegen.	to suck, saugen.	to lie, lügen.
to creep, kriechen.	to drink, saufen.	to deceive, betrügen.
to spring forth, quellen.	to swell, schwellen.	to shear, scheren.
to pour, giessen.	to enjoy, geniessen.	to shut, schliessen.
to offer, bieten.	to milk, melken.	

5. Verbs which take "u" in the imperfect :

to dig, graben.	to wash, waschen.	to load, laden.
to grow, wachsen.	to stipulate, bedingen.	to carry, tragen.
to produce, schaffen.	to hire, dinge.	to skin, schinden.
to bake, backen.	to drive, fahren.	to beat, schlagen.

"Here I have only been able to give the principles, which seem to me the sole scientific, and therefore the sole true, basis of a method for facilitating the process of learning by heart. The practical application of which it is capable, I explain in oral lectures. One of the most efficient results of these simple *psychological* principles is obtained by their application to the study of foreign languages."

**"PROGRAMME OF LECTURES AND DEMONSTRATIONS ON MEMORY BY
DR. EDWARD PICK.**

Dr. Pick, having made Psychology his special study, has thereupon founded and evoked a helping agent at once simple and natural, and capable of being brought instantly into active operation.

"SYLLABUS.

First Lecture.—The Fundamental Principles of the System; Association of Ideas; Application of the System to a Series of Words with or without Connection.

Second Lecture.—Application of the System to the permanent Remembrance of Numbers and Statistics generally.

Third Lecture.—Application of the System to the Study of the Holy Scriptures, History and Chronology, Chemistry, and Jurisprudence.

Fourth Lecture.—Application of the System to Foreign Languages, Proper Names, Geography, Botany, Geology, and Mineralogy.

Fifth Lecture.—Application to the Study of Languages, and to the Retention of Sermons, Lectures, Prose, Poetry, etc., General Application of the System, and the Audience tested to prove their Proficiency in it, and the Facility with which they have made themselves Masters of it."

COMMENDATIONS OF DR. PICK'S SYSTEM, 1853-1887.

(Journal des Débats—Jan. 24, 1854.)

This method has been examined by a Special Commission appointed by the Minister of Public Education; and the report of this Commission, composed of Inspectors-General of Public Education, has been expressed in terms so favorable to M. Pick, that he has been allowed to demonstrate his method before the pupils of the Upper Normal School (College of Preceptors).

(La Presse—February 1, 1853.)

By this method of M. Pick, one may become acquainted with and possessed of, for a life-time, a scientific instrument both apt and sure, which engraves on the memory, in a manner indelible, and without producing any sense of fatigue, things the most fleeting and abstract.

Thus, in the two preparatory lectures which he has already given, M. Pick, by means of his method, has succeeded in making his auditors retain, upon one hearing, a series of more than forty words. What results may not be looked for on the completion of the course?

(*L'Illustration*, January 7, 1854.)

. . . M. Pick has consequently based his method upon the principle that it is necessary to fortify the first impressions or ideas by mutually comparing them. To enlarge upon the special application of this method would require much time; suffice it to say, that its simplicity invests it with great value, with reference as well to the study of the classics as of the natural sciences.

The practical usefulness of this German Professor's method has been instrumental in obtaining for him the honor of teaching it in the first establishment of public education in France: viz., at the Upper Normal School. We hope that M. Pick will soon resume those public lectures at the "Athénée," which, last season, met with such remarkable success.

Professor Weber, late Director of the Preceptors' College in Bremen, one of the most celebrated writers on General Education.

"I advance my conviction, based upon scientific principles. . . . This method of Dr. Pick's is really practical, and presents the inestimable advantage of being true to nature, easy to be acquired, and applicable forthwith, without any loss of time whatever."

(*Morning Post*, London, November 25, 1859.)

The Principal of Magdalen Hall [Oxford] introduced Dr. Pick to the meeting, and stated that that gentleman had acquired great celebrity as a lecturer on the best mode of improving and strengthening the memory, at the Universities of Vienna, Leipzig, Heidelberg, and more especially at Paris. . . . Dr. Pick then addressed the meeting, and made some passing remarks on the nature of memory, its great value, and the facility with which it can be strengthened and made more retentive. . . . He had arrived at the conclusion that it could only be attained by the application of sound and natural principles, at once simple and exact, and in perfect harmony with the intellectual nature of man. He stated that, upon those principles, his whole system was based.

From Edward Thring, M.A., the distinguished author and educator, Head Master of one of the most famous schools in England.

"It gives me great pleasure to bear witness to the excellence and power of Dr. Pick's teaching on memory. . . . The whole of my working-life as a learner of new things has been turned round and doubled in efficiency since I heard Dr. Pick. . . . Dr. Pick's method has the marvellous advantage of being the right method for acquiring all knowledge, the true way to apply mind; whilst it also has a few simple, but all-powerful, rules by which the learning any thing by heart is rendered possible and lasting. I work by Dr. Pick's instructions, and I only wish everyone had the inestimable advantage of doing the same. The system is short, simple, and effectual. Practice only is required."

EDWARD THRING.

THE SCHOOL-HOUSE, UPPINGHAM, RUTLAND,
October 14, 1887.

(*Daily News, London, March 1, 1860.*)

Dr. Pick's reputation is based on grounds which educated men are quick to respect. Near the close of last year he lectured at Oxford, with the express approval and co-operation of the Principal of Magdalen Hall.


(*Daily News, London, May 8, 1860.*)


The meeting was presided over by Mr. Monckton Milnes, M.P., who, in introducing the Lecturer, bore testimony to the philosophic principles upon which the system was based. He said that Dr. Pick did not possess or profess any extraordinary faculty of memory; but that, in the pursuit of psychological studies, he had been led to consider the best means of strengthening and vivifying those ideas which he desired to retain. . . . In confirmation of his statement, he [Dr. Pick] asked his audience to apply the system then and there in an effort to retain large groups of words in a sequence not aided by any continuation of sense. This they accordingly did, to their own evident wonder; for the string of words, easily remembered by all present, after hearing them only once, must have numbered between forty and fifty.

(*The Lancet, London, November 10, 1860.*)

The system [Pick's] is founded on natural principles, by which facts, images, ideas, and numbers may be instantly and enduringly fixed in the mind. His method can be applied to the acquiring of languages, the study of anatomy, and other subjects. For medical students especially, who have to learn and remember so much, it would prove especially useful.

After carefully reading the first four pages of this lesson, then carry out the Directions on page 6.

 **NOTICE.**—Let no one be discouraged if this Lesson looks difficult; it is quite simple and easy, thanks to the use of some of the principles of my Art. All will be surprised at the shortness of the time it will take to master it, if they begin at the *beginning* and proceed *slowly* and *surely*.—A. LOISETTE.

 Neither any portion of this lesson nor any of its contents is to be mentioned or shown to anyone.

The Loisetian School of Physiological Memory;

OR,

INSTANTANEOUS ART OF NEVER FORGETTING.

PART I.

RECOLLECTIVE ANALYSIS.

"That ONLY, in an educational sense, is KNOWLEDGE to us which we have GAINED *through the working of our own minds*."—JOSEPH PAYNE.

PRINTED SOLELY FOR THE PUPILS OF

PROFESSOR A. LOISETTE.

 **MY SYSTEM ACCOMPLISHES FOUR OBJECTS NEVER SECURED OR ATTAINED BY ANY OTHER MEMORY METHOD.**

I. IT TRAINS AND STRENGTHENS THE NATURAL MEMORY TO THE HIGHEST DEGREE TO WHICH IT CAN BE CARRIED, AND THE PROCESS AND MODE OF IMPARTING THIS NEW MEMORY POWER ARE PLEASANT AND AGREEABLE TO ALL.



II. IN ITS CAPACITY AS A DEVICE FOR MEMORISING ANY FACTS WHATSOEVER, IT OPERATES IN EXACT CONFORMITY TO THE LAWS OF THE NATURAL MEMORY, WITH THIS DELIGHTFUL RESULT THAT EVERY TIME THE PUPIL USES IT AS A DEVICE HE INVIGORATES AND INCREASES THE POWER OF HIS NATURAL MEMORY, UNTIL AT LENGTH MY SYSTEM BECOMES NO LONGER NECESSARY.

III. THE MEMORY EXERCISES, IF LEARNED AS I REQUIRE, ALSO STRENGTHEN AND INVIGORATE THE DIRECTING POWER OF THE ATTENTION, SO THAT THE PUPIL CAN CONTINUE AT STUDY OR THINKING UNTIL HIS BRAIN POWER IS EXHAUSTED, AND REQUIRES THE RECUPERATION OF REST OR SLEEP.

IV. THESE MEMORY EXERCISES, IF LEARNED AS I PRESCRIBE, ALSO STRENGTHEN AND INVIGORATE THE INHIBITORY POWER OF THE ATTENTION SO AS TO PREVENT THE INTRUSION INTO THE MIND OF FOREIGN THOUGHTS, OR, IN OTHER WORDS, THEY PRACTICALLY CURE MIND-WANDERING.

My System is a Royal Road to all kinds of Learning, but there is no Royal Road to acquiring it. It has to be *learned*. The immediate object aimed at is the acquirement of a MENTAL DEXTERITY and an ENORMOUS STRENGTHENING of the NATURAL MEMORY; and a

person might as well hope to become a first-class Portrait Painter by reading instructions without any practice, as one of my Pupils aspire to Master the Art of Never Forgetting WITHOUT DOING ALL THE EXERCISES I prescribe; and yet children 10 years old master my System without the slightest difficulty. Do all become *proficients* in it? No. Why? From no fault of my System, but from a *mental inability*, which prevents such persons from *mustering any study whatever*. The infirmity of Mind-wandering incapacitates some people from taking in or absorbing the ideas or thoughts set forth in any study. *Memory is the revival of a past Mental Impression*. As these mental excursionists never dwell long enough on any new ideas to be able to *understand or comprehend* them, there are really and truly in this case no *First Impressions* at all, and hence there is nothing to be recalled. Until, then, these mental invalids get their Discontinuity cured, there is but slight probability that they will ever master any subject, trade, or profession. These unfortunates—who are, however, often highly gifted in other respects—will utterly fail to master my System of Memory unless they, *in the case of these lessons*, completely conquer this bad habit. They must carefully read over each sentence in my Lessons and then try to repeat the sense, if not the very words, of it from memory after they have *absorbed and familiarised themselves with all the ideas* in the sentence, in the manner set forth on pp. 54, 55, 56 and 57. They must subdue that chronic fickle-mindedness which *always* causes them to simply glance at the beginning of each paragraph, and to rush on to the last sentence without any distinct comprehension of what has preceded; and then to give up in despair because the two or three ideas they *have* acquired cannot do the work of the dozen ideas they have overlooked!! Strange as it may seem, I often find Pupils are dreadfully troubled with Mind-wandering who have never suspected the fact!! The Art of Never Forgetting is not magic—there is no trick about it—it is simply a Memory Discipline of the highest order; and to acquire it, careful Study and patient Practice are indispensable. And with these auxiliaries, and not without them, it becomes a most fascinating and useful study, for it is the Golden Key that unlocks the secrets of all kinds of learning. Every genuine student has always been charmed with these Lessons, for they are in no sense *tasks*, but only delightful mental recreations.

 *No Pupil ever receives the next Lesson until he furnishes me satisfactory proof, by carrying out my instructions and doing the prescribed exercise, that he has mastered the Lesson he has received.* 

My System is built on the *Natural Memory*. It is a *Physiological Method*. Memory being a primordial property of the protoplasma differentiated as nerve ganglia—similarly as contractility is a primordial property of the protoplasma differentiated as muscular fibre—it can be strengthened by practice, as the muscles are strengthened by practice, and the KIND of exercise insisted upon in my System secures the highest DEVELOPMENT of the Memory in the shortest possible time. There are two stages of the Natural Memory. I. The Stage of the First or Original Impression [received into the mind through the Touch, Taste, Smell, Eye or Ear, or arising in the mind from its own operations]. II. The subsequent Revival of that Impression.

THESE STAGES REQUIRE FURTHER NOTICE.

The *first impression* may be defective. If there is no first impression, then there is nothing to recall and there can be no memory. If the first impression is feeble, then it makes no abiding mark ; it soon fades out, and no effort can recall it. The first essential to a good memory is therefore to get *vivid first impressions*. There are two causes of defect in first impressions.


A deaf man can have no first impression of a stranger's voice. Not hearing it, he cannot remember it. There is nothing to remember. There was no first impression. Similarly, a blind man can have no first impression of a new colour or a strange face. He can never remember them because he has had no first impression, and has, therefore, nothing to remember. Precisely in the same way, a man who reads a book without understanding it gains no first impressions, and therefore cannot remember. There is nothing for him to remember. There may be ideas in the book, but if he has not grasped them, he has had no first impression, and he can have no memory of them. He may remember the words in which the ideas are expressed, but that is another thing. We may call this defect *Privative*, since the person is *deprived* of his first impression. My System cannot, of course, give sight to the blind or make the deaf hear ; but though it cannot make a first impression where none exists, it can and does enable a person to secure vivid first impressions in all cases.

The second great cause of defective first impression is *lack of attention*. When you come home from a walk through a crowded street, can you remember the appearance of the last three persons that you passed ? No. In ninety-nine cases out of a hundred you cannot tell whether they were men or women. Yet you passed close to them, looked them full in the face, perhaps brushed against them. And you cannot remember half an hour afterwards a single particular of their appearance. Why is this ? You say it is because you paid no attention ; and you are quite right. The first impression was made upon your senses : it was carried to the brain ; but it failed to get itself registered. You were thinking about other things. The higher brain-centres were occupied in other ways, and the new impression knocked in vain for admission. It was turned from the door. It never effected a complete entry. The first impression was so faint, so fleeting, so transient, that the strongest power of recall fails to revive it. Of such an impression there can under ordinary circumstances be no memory. But if the last person you saw before entering the house happened to be a beadle, resplendent in his official costume, you might be able to remember his appearance ; if it happened to be a Chinaman, dressed in the habit of his nation, you would very probably recollect him ; and if perchance it was an unfortunate soldier with half his face shot away, the memory of him would certainly be very strong and might be unpleasantly persistent. Why is there memory in these cases and none in the previous case ? Because, you say, in these cases your attention was attracted ; and in proportion as the attraction was strong the remembrance is strong also. You may have seen a shoemaker putting nails into the sole of a boot. With his left thumb and finger he pricks the point of the nail into the leather just far enough to make the nail stand upright. It is so feebly attached that at the least shake it falls on the floor. Then down comes the hammer and drives the nail up to the head. Now the sensations that are continually pouring in upon us by all the avenues of sense—by the eye, ear, nose, tongue and skin—as well as the ideas streaming into our minds, are on their first arrival attached as feebly as the nails to the boot. But then down comes the *Attention* like a hammer, and drives them into consciousness, so that their record remains for ever. From all this we see the importance of a good power of Attention. Unless you have such a command of your Attention that you can bring it down heavily upon impression after impression, so as to drive them home into your consciousness, they will have no firm attachment and they will be shaken out by the first movement of the mind.


It is manifest, therefore, and it is insisted on by many writers on Mental Science, that the first requisite to a good Memory is a good power of Attention. But none of these writers give even a hint as to how this power is to be attained. There are very many people who are so afflicted with Mind-wandering, which may be regarded as a paralysis of the Attention, that it is impossible for them to attend to any single subject for two consecutive moments. All the while that their eyes are fixed on a book and their lips are repeating the words that they read, a phantasmagoria of disconnected images is dancing through their mind. Memories of past scenes and past events, sober anticipations, and castles in the air, rise to the surface and jostle one another like bubbles in a boiling pot. To such people it is no doubt interesting to know that, unless and until they control their Attention and keep it fixed on the subject they are learning, they will never be able to remember : and similarly it is interesting to a paralysed man to know that until his muscles regain their power he will not be able to walk ; but it is no more use to tell the mind-wanderer to keep his Attention fixed than to tell the paralysed man to move his leg. In the one case, as in the other, the sufferer must be put through a course of treatment. But in the case of the mind-wanderer this necessity has not been recognised. No writer on

Mental Science has ever suggested that it was possible to give control over the attention by a proper course of exercises, far less has any one suggested the kind of exercise necessary. Now, one of the cardinal points in my System is this very treatment of Mind-wandering. By following my instructions and doing the exercises I prescribe, the mind is tied down to the subject-matter by a tether which brings every excursion of the attention to an end with a sharp jerk; and which ends in binding the mind down to the task closely and continuously. Thus, by these unique exercises, the Habit of Attention is created, consolidated and made firm and unwavering, for all future occasions.

TIME TO LEARN MY SYSTEM.—Those persons who are engaged all day in hard labour or in mental or bodily dissipation, or in other studies, should retire an hour or two earlier at night, *in order to get up an hour or two earlier in the morning*, so that they can study these lessons when the *mind is fresh* and the *body rested*.

 **NO NEW ACQUISITIONS** can be made when the mental and physical energies are exhausted.

My Discovery, so far as it pertains to this Lesson, demonstrated *what had never been suspected by any one before*—that all memories—the strongest as well as the weakest—are **PRODIGIOUSLY STRENGTHENED** in both Stages by learning and reciting forwards and backwards, or, what is better still, by *making and repeating* from memory both ways, a series of from 100 to 500 words arranged in conformity to the three Laws given below, which Laws were revealed to me, on their Physiological, or only true side, by my Discovery.

 Every First or Original Impression *arouses or excites* previous Ideas or Congenital Predispositions to Ideas, through the principles of *Inclusion, Exclusion, or Concurrence*; and whenever we *recollect or recall* any First Impression or Idea, we do it by passing from our present mental state, through *Inclusion, Exclusion, or Concurrence*, to the registration left by the aforesaid Original Impression or Idea.

[See Pages 45, 46 and 47.]

FIRST EXERCISE.

THREE LAWS OF RECOLLECTIVE ANALYSIS.

I. THE FIRST AND PRINCIPAL THING THE PUPIL REQUIRES TO DO IN THIS LESSON, IS TO LEARN THE DEFINITION OF THE FOLLOWING THREE LAWS—AND TO BE ABLE TO CLEARLY UNDERSTAND THE EXAMPLES UNDER EACH LAW.

I. **INCLUSION** indicates that you realize and feel that there is an *overlapping of meaning* between two words, or that there is a *noticed or recognised idea* or sound that belongs to both alike, as, to enumerate a few classes:

SIMPLE INCLUSION (mostly synonyms)—Riches. Wealth. Frequently, Often. Obstacle, Barrier. Wretchedness, Misery. Loss, Lack. Inquire, Ask. Allow, Permit. Work, Labour.

WHOLE & PART—Earth, Poles. Ship, Rudder. Forest, Trees. Air, Oxygen. House, Parlour. Clock, Pendulum. Knife, Blade. Horse, Hoof.

GENUS AND SPECIES—Animal, Man. Plant, Thyme. Fish, Salmon. Tree, Oak. Game, Pheasant. Dog, Retriever. Gas, Oxygen. Rock, Granite.

ABSTRACT & CONCRETE—(The same Quality or Property appears in both)—Dough, Soft. Empty, Drum. Lion, Strong. Courage, Hero. Glass, Smoothness. Gold, Ductility. Oxygen, Colourless.

SIMILARITY OF SOUND—Emperor, Empty. Salvation, Salamander. Hallelujah, Hallucination. Oxygen, Oxen. Cat, Catastrophe. Top, Topsy. (Inclusion by sound is not punning.)

II. EXCLUSION means that you observe that there is an *antithesis*, or that one word excludes the other, or that both words relate to one and the same thing, but occupy *opposite* positions in regard to it, as Riches, Poverty. Hot, Cold. Old, Young. Damp, Dry. Life, Death. Love, Hate. Joy, Sorrow. Courage, Cowardice. Health, Sickness. Righteous, Wicked. Beauty, Ugliness.

III. CONCURRENCE is the felt relation between two ideas or impressions which we have sensuously *experienced* or *thought* of together or almost simultaneously, or History has *told* us are together, *although having no relation necessarily*—Daniel, Lion. Execution, Marwood. Gravitation, Newton, Apple. Dives, Lazarus. Abraham, Bosom. Pipe, Tobacco. Michaelmas, Goose. Columbus, America. Grandmother, Knitting. Socrates, Hemlock. Bruce, Spider. Nelson, Trafalgar. Demosthenes, Seashore, Pebbles. Job, Patience. Wedding, Slippers. Wellington, Bonaparte, Waterloo. Oxygen, Priestley. Sin, Punishment. Will, Act. Cause, Effect. Lightning, Thunder.

[In the case of the following pairs, one word has been so often appropriated to the other, that there seems to be something in common in the meaning of the terms—but it is not so, they are mere cases of Concurrence, but of almost indissoluble Concurrence. For instance, a man might examine a "spade" in all its parts and might even make one after a model, and not even know what "dig" means. The mention of "dig" is as likely to make us think of pickaxe as of spade. "Spade" does not mean "dig," nor does "dig" mean spade. "Dig" merely means the *action* of the "spade" or the *use* to which it is put. Hence this pair of words does not furnish an example of Inclusion. But as "dig" is frequently appropriated to "spade"—as we have often thought of those words together—this is a case of strong Concurrence. The term "swoop" is almost exclusively applied to "eagle." A certain action or movement of the eagle is termed swooping. But "eagle" does not mean "swoop," nor does "swoop" mean "eagle." We always think of "eagle" when we think of "swoop," but we do not always, or even often—think of "swoop" when we think of "eagle." It is not an example of Inclusion, but of mere Concurrence.

Spade, Dig. Razor, Shaving. Coffin, Burial. Chair, Sitting. Scythe, Cut. Sword, Wound. Pen, Write. Ears, Hearing. Road, Travel. Food, Eating. Paper, Write. Wine, Drink. Worm, Crawl. Bird, Fly. Eagle, Swoop. Hawk, Hover. Ram, Butt. Teeth, Gnash. Wheel, Turn.]

Before proceeding further, let the Pupil re-read the foregoing Laws, and endeavour to satisfy himself that each example really illustrates the Law under which it is given.

Let the Pupil also make out for each of the three Laws a list of *illustrations different* from any of the foregoing, and send it to me for criticism. Send all the exercises on this lesson at the same time.

SECOND EXERCISE.

II. THE NEXT THING IS TO LEARN BY MEANS OF THESE LAWS THE PRESIDENTIAL SERIES, PP. 36-39.

Now let the Pupil ask *what relation* he finds between the following words:—

President }
Dentist } In. by S.

There is nothing in common in the *meaning* of these words. Nor is there any antithesis between them, nor have we ever thought of them together, so that when we now think of one it recalls the other from the operation of Concurrence, but it is a case of In. by S., as the sound *dent* belongs to both alike.

Dentist }
Draw } Con.
and In.

The meaning which common usage has assigned to Dentist, is one who draws or extracts and repairs teeth, &c. So some may deem this a case of In., as the idea of "drawing" belongs to both words, principally to dentist and wholly to "draw." No one can think of a dentist without thinking of drawing teeth, so this is a specimen of Con., especially strong, if we have had personal experience with dentists drawing teeth.

Draw }
To give up } Ex.

To draw is to pull, to use force—to overcome resistance. To give up is to yield to force, to make no opposition, to surrender voluntarily. Here, then, are distinct opposites.

To give up }
Self-sacrifice } In.

Self-sacrifice means to *give up* one's own interest or what is dear to one. "To give up" is to give up anything, trifling or important. "Self-sacrifice" is to give up a great deal. It is In., G. and S.

Self-sacrifice }
Washington } Con.

Washington being a proper name, has no signification *as such*, no connotation; it is a *sound* to which the man answers. Therefore there can be no In. by meaning here. But we *have thought of* Washington and self-sacrifice together, as history has informed us that he refused to be made Dictator by the army, and to be elected President for a third term. Hence it is a case of concurrence.

Washington }
Morning wash } In.
by S.

Although a proper name as such has no meaning, yet the parts or syllables of it may be significant words, as "wash" in Washington. Wash belonging to "Morning wash" and

"Washington," this is a case of In. by S. through the syllable "wash." It may be well to remark that in imposing a name in the first place, a reason may exist why that name is given, as Albus [white] was given to the mountains, now more euphoniously called Alps, because they were white or snow-crowned; but Alps does not *mean* white to the moderns. The word merely indicates or points out the mountains so called.

Morning wash } In.
Dew }

If "Dew" is regarded as a "Morning wash" of the flowers, &c., then this would be a case of In. by Genus [Morning wash] and Species [Dew] of that "wash." As both imply moisture, there is something in common in the meaning of the words. It is simple In.

Dew } Con.
Flower beds }

There is nothing in common in the meaning of the words. But experience has told us that in the morning the dew is often on the flower beds. It is mere Con.

Flower beds } In.
Took a bouquet } or
Con.

If we merely think of "flower" and "bouquet" we should have In. by whole and part—since a bouquet is a collection of flowers, and a flower is but one of a collection. But if we think of "flower beds" as a whole by itself, the relation between these two words and "bouquet" would be Concurrence, since we know that flowers are often selected from "flower beds" to make a bouquet. Thus we see that as words have sometimes several meanings, and as we can bring them into different relations according as we look at them from one or another point of view, we may therefore find or discover the relations of In., or In. and Con., or even of In., Ex. and Con., between the same pair of words, as in the case of Plough, Sword. This is a case of In., since both are *cutting* instruments. It is also Con., since we have *thought* of them together in reading about "Beating swords into ploughshares," and also of Ex., as one is the emblem of Peace and the other of War.

Took a bouquet } Con.
Garden }

Although we cannot get bouquets from all gardens—kitchen gardens for instance—and although we can sometimes get bouquets from places which are not gardens, yet as we generally think of bouquets as taken from gardens, this is mere Con.

Garden } Con.
Eden }

"Eden" means a place of pleasure. Hence Garden of Eden was a pleasant place—a Paradise. We have often thought of the "Garden" of "Eden"—of these words together. Hence it is Con.

Eden }
 Adams } Con.

The word Adams is merely the word Adam, with the addition of "s." We have often thought of Adam having been placed in Eden. It is Con.

I.—Now see if you can correctly repeat these 13 words from memory—not in doubles as in the above analysis (nor by recalling the words Inclusion, Exclusion, or Concurrence), but as a Series. If not, *re-think* the relation between the words where your memory failed until you can repeat the 13 words in the exact order. This direction is almost universally violated. ~~Remember~~ Remember you are committing to memory, *not by repetition*, but *by analysis*, and this requires that, where your memory failed, you should *re-fortify* the first impression only by *re-thinking* the relation between the words.

II.—What is really accomplished by the disagreeable act of endless repetition? *Nothing*, except vaguely impressing these relations [In., Ex., or Con.] on the mind by a slow instinctive absorption, whereas a *conscious Thought* and a *reflecting Analysis* accomplish the same result with a thousand-fold greater *vividness by only one perusal*. Besides, what is consciously learned by Analysis remains—but what is vaguely absorbed by *rote* is very soon forgotten. Again: suppose your memory is so weak that in one or more instances you have had to re-think the relation between the words three or more times. This is very different from mere repetition. There is *no thought* in mere repetition, whereas in reviving the relation between a pair of words there is a distinct act of thought. You put "brains" into the operation. And, what is more, you do not tickle the fancy or the imagination, whose burdens your memory would have to carry in addition to its own, but you invigorate and intensify the memory itself; and the readiness of the RECALL always has relation to the *vividness* of the *First Impression*.

III.—If you had learned these 13 words by *ROTE* it would have occupied very much longer time, perhaps 50 times as long, and if you wished to say them backwards you would have to learn them backwards!!! And this would have occupied you five times as long as learning them forwards, because you would be constantly mixing up the forward order with the return order. But, if you can NOW say them from "President" to "Adams," you can readily *say them back* from "Adams" to "President." Try!

IV. Now proceed in the same manner, solely by analysing the *relation* between the words, to learn the next set of words from "Adams" to "Madison," so as to say this last series both forwards and backwards from memory, and without mistake.

Adams }
 The fall } Con.

Adam fell from his first estate by not keeping the commandment. We have often heard or read of "the fall" of Adam. It is Con.

The fall }
 Failure } In.

Failure is any kind of failure. The fall was a particular kind of failure. It is In. by Genus and Species.

Failure }
 Deficit } In.

Here again we have In. by Genus and Species, deficit being a special failure, a failure of revenue.

Deficit }
 Debt } In.

Deficit refers to lack of means of payment. Debt to the obligation and duty to pay.

Debt [bonds } Confederate }	In.	This is a relation by Genus and Species. Debt covers all kinds of debts, and Confederate Bonds are a species of debt.
Confederate bonds } Jefferson Davis }	Con.	This is Concurrence, as Jefferson Davis was President to the Confederacy that issued the Confederate Bonds, which have never been paid.
Jefferson Davis } Jefferson }	In. by S.	
Jefferson } Judge Jeffreys }	In. by S.	
Judge Jeffreys } "Bloody assize" }	Con.	The "Bloody assize" was held by Judge Jeffreys in August, 1685. He caused upwards of 300 to be executed, many to be whipped, imprisoned, and fined, and more than 1,000 were sent as slaves to American plantations.
"Bloody assize" } Bereavement }	Con.	The "Bloody assize" caused or was followed by great bereavement. Whoever has thought of the "Bloody assize," must have thought of the grief and mourning it caused.
Bereavement } Too heavy a sob }	Con.	This is Concurrence. A bereavement is usually accompanied by sobbing. We have often thought of heavy sobs in connection with great bereavement.
Too heavy a sob } Parental grief }	Con.	Same as foregoing.
Parental grief } Mad son }	Con.	Although a mad son usually causes parental grief, yet there is nothing in common in the meaning of the words. The relation is that of Con., as we naturally expect to find that a mad son causes grief to his parents.
Mad son } Madison }	In. by S.	

Now recall all the words in the reverse order from "Madison" to "President," and then in the forward order from "President" to "Madison." When, in learning a series, you have finished a set of words, *always* go backwards and recite all the words from where you leave off to the beginning, and then return. Every successive tenth (or thereabouts) word (in capitals) will furnish a convenient stopping place.

Never start learning anything in this course of lessons before you have read the directions, before you have understood *how* you are to learn it.

On no account do the learning before you do the analysing. Recollective Analysis is *not* grammatical analysis. What you have to analyse is the relationship between each pair of words.

Let the Pupil learn the remainder of the Presidential Series and send his Analysis thereof for criticism.

[The Names between brackets can be disregarded.]

President	|	To give up
dentist	|	self-sacrifice
draw	|	WASHINGTON [George]

morning wash
 dew
 flower-beds
Took a bouquet
 garden
 Eden
 ADAMS [John]
 the fall
 failure
Deficit
 debt
 Confederate bonds
 Jefferson Davis
 JEFFERSON [Thomas]
 Judge Jeffreys
 "Bloody Assize"
 bereavement
Too heavy a sob
 parental grief
 mad son
 MADISON [James]
 Madeira
 first-rate wine
 frustrating
Defeating
 feet
 "toe the line"
 row
 MONROE [James]
 oar
 boat
 steamer
The funnel
 windpipe
 throat
 quinsy
 QUINCEY ADAMS
 quince
 fine fruit
The fine boy
 sailor boy
 Jack Tar
 JACKSON [Andrew]
 "Stonewall"
 indomitable
Tough make
 oaken furniture
 bureau
 VAN BUREN [Martin]
 rent
 splitting sides
Divert
 recreating

harassing
 HARRISON [William H.]
 Old Harry
 tempter
The fraud
 painted clay
 baked clay
 tiles
 TYLER [John]
 Wat Tyler
 poll tax
 compulsory
Free will
 free-will offering
 Burnt offering
 poker
 POLK [James K.]
 end of dance
 termination "ly"
Adverb
 a part of speech
 ninth part of man
 TAYLOR [Zachary]
 measurer
 theodolite
Theophilus
 fill us
 FILLMORE [Millard]
 more fuel
Hot flame
 flambeau
 bow
 arrow
 PIERCE [Franklin]
 hurt
Feeling
 wound
 soldier
 cannon
 BUCHANAN [James]
 rebuke
 official censure
Officiate
 marriage ceremony
 linked
 LINCOLN [Abraham]
 arm-in-arm
 stroll
 seaside
Heavy Shell
 molluscs
 unfamiliar word
 dictionary

JOHNSON [Andrew]
 son
 dishonest son
Thievish boy
 thief
 take
 give
 GRANT [Ulysses S.]
 award
 school prize
 cramming
Fagging
 labouring
 haymaking
 HAYES [Rutherford B.]
 hazy
Vivid
 glowing

camp fires
 war field
 GARFIELD [James A.]
 Guiteau
 murderer
 prison
Half-fed
 well-fed
 well-read
 author
 ARTHUR [Chester A.]
 round table
 tea table
 cup of tea
Half-full
 divide
 cleave
 CLEVELAND [Grover]

[None of the foregoing WORDS, as a series or part of a series, is ever to be mentioned to any one, nor how words are cemented together by my System.]

V.—I have two purposes in view in prescribing the learning of such a Series as the Presidential Series. (1) To familiarise the Pupil with the Laws of Analysis. (2) The DAILY recital of such a series forward and backward *tends greatly to strengthen the natural memory*. This daily recital is not done to *learn* the series, for that is done in one careful perusal; but the subsequent recitals are solely to exercise and *train* the memory.

VI.—My System of Memory-TRAINING accomplishes two purposes. (1) EVERY FIRST IMPRESSION will hereafter be much more VIVID than formerly. My Discovery, as well as the universal corroboration of it in practice, proves that contrary to the natural expectation, it is not sufficient merely to know the Laws of In., Ex. and Con., as a matter of mental science, but that it is necessary, in order to secure the above improvement in every first impression, to have *ample practice* in applying these Laws in *actually analysing* those relations between words where they are found to exist, and also much practice in *memorising* the order of such words, and especially in *reciting* them forwards and backwards from memory. In due time the mind will be unconsciously impressed with these relations much more vividly than formerly, in a manner not unlike the experience of the child in learning to read. At first every word must be slowly and carefully *spelled*, but after some practice they are rapidly read at sight without being consciously spelt. The ambitious Student who wants to acquire the peculiar and distinctive power of my System in this respect will not fail to learn and recite the Presidential Series two or three times per day for at least one month, * *with no day omitted*. And, if a Pupil's memory has become deteriorated through lack of exercise, or from bad habits, or through the perverting influence of mind-wandering, or bad health, or the approaches of old age, or ex-

* Of course he can still go on with his other Memory Lessons. He need not delay his second lesson until he has done this month's reciting.

cessive mental toil, and if he wishes to obtain the very highest results of this practice, let him make four Analytic Series of 100 words, each one containing as many Inclusions of meaning, and as few by sound as possible, and there will of course be intermediate Exclusions or Concurrences, or one may contain as many examples of Exclusions as he can think of, and another as many Concurrences as he can introduce, while another is so simple and plain as to be comprehensible by children nine years old. Let him send me his analysis of any or of all these new Correlators for my criticism, and then let him memorise them and *daily recite them two or three times both ways with the Presidential Heptarchy and Dough, Dodo Series for a month!!* The rehabilitation and highest invigoration of his memory in respect to EVERY first impression will reward his exertions.

THIRD EXERCISE.

The following 65 words should be thoroughly learned by Analysis, and repeated forward and backward once or twice per day for twenty days. In the next lesson it will appear clearly why, owing to the necessarily limited choice of words, the analytical relations between them are less obvious than if the choice had been unrestricted. The less obvious, however, the connection, the better exercise it will be in tracing the relations of In., Ex. or Con., with which it is *now* the Pupil's object to become familiar.

[None of these WORDS, as a series or as a part of a series, is ever to be mentioned to anyone.]

Dough	High Mass	Leap
Dodo *	Noisy	Lamb
Lay	Meek	Jam
Outlay	Nun	Rive
Money	Enough	Mad
Rogue	Muff	Dash
Watcher	Hand	Hash
Lair	Match	Dine
Chase	Dip	Inn
Lasso	Nile	Talk
Mule	Eddies	May hear
Rod	Ray	Harp
Gnash	Dray	Rhyme
Happy	Heavy	Leaf
Home	Numb	Lawn
Dome	Rouse	Rich
Egg	Lull	Honey bee
Hennery	Chide	Rear
Mope	Lad	Nag
Leash	Lag	Mum
Chain	Run	The foe
Rail		Dough

* A short clumsy bird of Mauritius, now extinct.

(2) The second result of my System of Memory-TRAINING is that the general RETENTIVENESS, or the Power of Recalling and Reviving past impressions, is enormously increased in every respect. No one, I admit, would naturally have anticipated this result, but it was taught me by my Discovery in the first instance, and every faithful Pupil's experience fully corroborates my Discovery. This result depends on three indispensable conditions:

- (a.) Each exercise in my Lessons must be learned in the *exact manner* I point out (and never by *rote* or by picture-making), and so thoroughly learned that there is the highest degree of CERTAINTY always felt in reciting it. If a Pupil says "I take no interest in the Presidential Series," or in any of the exercises of subsequent Lessons, he simply declares that he is the Teacher, and not the learner, and that he will not resort to the MEANS that my System enjoins to secure the Power of it. All my exercises have been chosen with the sole view of communicating that Power, and if the Pupil acquires it he can hereafter sport familiarly with the heaviest Memory tasks that can be imposed.
- (b.) The NEXT condition is that he should so learn all my exercises that he can recite them with the greatest possible RAPIDITY. What is learned by *rote* and rapidly recited concerns that particular case only. But whatever is strictly learned by my Method, and rapidly recited, *strengthens the GENERAL retentiveness*. A stickler for antiquated methods once asked me if committing to memory by *repetition* an entire Greek Grammar verbatim would not strengthen the natural memory as much as the Daily recital both ways of the Presidential Series. My answer was "Certainly not; learning the whole of that Greek Grammar by *repetition* would not strengthen the natural memory, but, from excessive strain, it would promote mind-wandering to an enormous degree. When you have carefully read a sentence over once you have usually exhausted and absorbed all the ideas in it, and every subsequent repetition, adding nothing new, becomes by excess of familiarity painful and distasteful. The mind will wander after the second or third repetition. In fact, *learning by repetition* is the cause of half the mind-wandering existing in this country. On the other hand, the recital of any Series learned by Analysis strengthens the *mental cement* between the thoughts. Learning by repetition impresses the Memory as the flicker of the expiring ember affects the eye. But learning by Analysis or *reciting* what was so learned affects the Memory as the eye is affected by the Electric Light. And the more STIMULATING the EXERTION of Memory the greater its Physiological growth, in manner as bodily muscle grows strong by judicious gymnastic exercise." And the highest possible stimulation and invigoration of the Memory is gained by *rapidly* reciting what has been learned by Analysis. However slowly he must recite the Presidential Series at first, he will soon be able to do it *inside of a minute each way*. And if it takes a long time and much patience to do this in any case, that person should know that it is because his memory is very weak, and that he requires this mental gymnastic to enable him to gain the memory he needs.
- (c.) The LAST condition is the acquirement of absolute CONFIDENCE

in reciting my exercises *in the presence of others*. 📖 The exercises in this Lesson are NOT to be repeated before anyone. Reciting to one's self what has been learned is a very different thing from doing it before others. Whoever wishes to speak in public, or pass examinations, or *think* or *act* before others—whoever is, in short, not a hermit—should rehearse the exercises of 📖 *subsequent* Lessons in the presence of his friends as often as possible, until he can say them as confidently as he can now say “twice two are four”!! Of course he must never give “any idea” how he has learned them—nor must he ever mention the 📖 Presidential Series, Heptarchy Series, or the Dough, Dodo Series to anyone, nor recite it to anyone, nor speak of the Three Laws of In., Ex., or Con.


- (d.) The RESULT of this thoroughgoing Memory-TRAINING is to correct false habits of Memory-association, and to develop and strengthen the *cementing* and *reviving* power of the Memory to the highest attainable degree in regard to *all subjects whatsoever*.
- (e.) Another RESULT is that the Pupil habituates his Memory to act under the control of his WILL.
- (f.) 📖 Another RESULT of this genuine Memory-TRAINING is that my Pupils can hereafter learn to play or sing or speak without notes!! and this is done without resort to any devices, but solely from their NEW memory-power. Musical notation, as in a tune to be remembered, is a series of complex symbols; and to resort to any device to enable you to remember that series, would be only imposing another burden on the Memory. Of course, the Student must learn and understand the symbols; and my System enables him to remember the series of symbols that make the tune, by giving him a *New* and *Stronger* Memory. What was hard or impossible for him to remember when his Memory was weak, becomes easy to him when it is powerful.
- (g.) 📖 Another RESULT of this Memory-TRAINING is that after a little time the Pupil will, by a mental reflex, be affected by the relations of In., Ex. and Con. without *consciously analysing* them, not only between WORDS, but between sentences, propositions, theories, chapters of books, &c.—a marvellous extension of intellectual grasp and apprehension.

And what a trifling and merely temporary burden I impose for acquiring the great and lasting power of a good Memory!!

1. 📖 Members of a Correspondence Class must always enclose a *stamped directed envelope*. This is the only condition on which I consent to deal SEPARATELY with Members of a Class. And private Pupils should in every case send *stamped directed* envelopes if they wish the most prompt replies, as writing and stamping envelopes take time, as does also sometimes *deciphering* an illegible name and address!!! If the next Lesson does not arrive, the Pupil will know why!!


2. 📖 Every page of exercises must bear the *Pupil's signature*, and if he belongs to a CLASS the name of its *Organiser* must be given with the Pupil's name.

3. 📖 There is not the slightest use in sending for the next Lesson unless the request is accompanied by the EXERCISES on the previous Lesson. 📖 Besides, you should mention the name, as Recollective

Analysis, &c., not the number, of your last Lesson, as the exercises sometimes get mislaid. And, whenever you refer to a past Lesson, mention its subject-matter, and  not its NUMBER.

4. If Pupils wish to keep their exercises, they must *retain* copies of them, as I never return any exercises except those which require correction.



5. *After you have completed the Course*, you will find that everything has been *thought of* and *provided for*. Don't try to *anticipate*.

6. No answer is ever given to a  Post Card, referring to Lessons, nor should any exercises be sent to me by book post.

MEMORY ATHLETES.—The names of those who excel in the use and application of my System I usually enter in my book entitled the "Loisettian Roll of Honour." Those who wish to have their names enrolled must give me *one month's* notice after completing the course, and before offering proof of their qualifications for enrolment.

The qualifications are (1) their having carried out ALL my directions in ALL the lessons—(2) Their furnishing me proof of the *time* occupied by them in memorising ten lines of unfamiliar poetry, selected by others, and also ten lines of unfamiliar prose, selected by others, on at least ten different occasions, together with a copy of the pieces memorised. [How this can be done will be shown in future lessons.]

There must be no "conjuring" done here, by your indirectly "forcing" the attention of the Umpire to the particular portion of a column of a newspaper you hand him, whereby you thus induce him, unconsciously to himself, to select a *passage already committed to memory* by you!!! or by your getting some one to thus "juggle" for you; but let the Umpire receive no hint from *you* or *any one on your behalf* as to what printed matter or *what part of it* he is to select from.

 A precocious youth (not thinking that, if he did not have any property to respond to a Judgment to-day, he might have some that would have to satisfy it hereafter) recently thought he could communicate "an idea" of my System, in violation of his contract with me, and, as he supposed, without any possible risk to himself!! But I think he will "never forget" to keep similar engagements hereafter; for he found, to his bitter sorrow, that there was more in his contract with me than he had dreamed of. Both briber and bribed got their deserts, as they always do in such cases. My treacherous Pupil found that in taking money for what he had no right to sell, he was, in this respect, guilty of getting money under a double false pretence.  Another acute youth, intending to practice a fraud on me, signed my contract, not with his own name, but with a false name, and thus rendered himself liable to a prosecution for forging another man's name, with a view to injure me, without, as he hoped, risk to himself! He will never forget the penalty that always awaits on rascality.]

Any Pupil having an *exceptionally weak* memory, or wishing to strengthen his Natural Memory to an extraordinary degree, must make one or more Analytical series himself, and learn and recite them forwards and backwards, together with the "Presidential Series," "Heptarchy Series" and the "Dough, Dodo Series," once or twice a day for an entire month, with *no day omitted*, but never in the hearing of any one. Do not aim at introducing proper names, or any other special words, but merely at connecting words by analysis, such as:—water, wet, dry, moist, &c.

[None of these WORDS, as a Series, is ever to be mentioned to any one.]

HEPTARCHY SERIES.

Analyse the Series and send it to me. If you memorise it, do so by learning ten or twenty words at a time, and recite both ways daily for one month, in connection with the Presidential, and Dough, Dodo Series, and in extreme cases in connection with Series of your own making.

Heptarchy *
seven
"Sevenoaks"
Fine Oak
acorn
egg-shaped
EGBERT
white of egg
Foaming
mad dog
wild dog

I.

WOLF
lamb
sheep
Flock
wool
hairy
BALD
piebald
horses
"gees"
Fijis
islands
land
mother earth

II.

BIRTH
ship
fishing smack
Fish show
flesh
blood red
RED
Red Republican
faction
Fact
factious

annoy
fret

III.

ALFRED
alphabet
letters
Post
letter-box
key
WARD
warder
door-keeper
Panel
painting
easel

IV.

STAND
standard
alloy
Brass
coppers
money
MONDAY
school
Birch
dunce's dread
EDRED
Dreadnought
wicked
Belial †
leader
head

V.

EDWY
run ahead
pursuing officer
Bailiff
bail

guarantee
EDGAR
garlic
onion
Pickle
acid
corroded iron
worn
WARN
getting ready
Pack up
pack off
retreat
repulse

VI.

REDAN
Daniel
Faith's trial
Test him
examination
scholar
illiterate
SWAIN
labouring man
weeder
thistles
Destroy
generate
gender
neuter

VII.

CANUTE
can
bin
Duster
dust
rust
RED-BROWN

* Gr., *hepta*, seven, and *archē*, rule.

† See 2 Cor. vi. 15.

brown study
coach
The stage
'All the world's a
stage'
MUNDANE
worldly
irreligious
Atheistic
stick
paddle

CANOE
Indian
dark
Dismal

foreboding
forerunner

VIII.

HERALD
arms
cannons
Howitzers
strong tubes
bamboos
hard canes

HARDICANUTE
hardy sailor
mast-head
look out

Discern
bright-eyed
cheerful
warm-hearted

WARM
warm work
battle
It is Joshua
crossing Jordan
wading bird
HERON
long bill
law bill
Chancery suit
The wise judge

MEMORY-TRAINING.

My System with all its exercises is solely for the purpose of DEVELOPING and TRAINING the Natural Memory to such a degree of Power that my System will be no longer required!! The exercises are not too many. They have been planned and devised as the result of many years' teaching. Whoever learns them as I prescribe, will, when he has finished the Course, have a Memory and Concentration to his heart's content.

RELATIVE VALUE OF THE THREE LAWS IN MEMORY-TRAINING.

Cases of In. by *meaning* are most important—Exclusions come next—Inclusions by S. are next—and Concurrences are last, but scarcely in all cases least.

[E] If a Pupil finds that any one relation is weak to him, as In. by S., or Ex. or Con., he needs to develop an appreciation of that particular relation, until it is as effective to him as either of the others. And he can do this by making one or more Analytical Series wherein that relation oftenest occurs, and then thoroughly memorising the same and reciting both ways daily with the others.

[E] But neither the Analytical Series I furnish him nor those he makes, must ever be mentioned to anyone.

THREE LAWS OF RECOLLECTIVE ANALYSIS.

[These Laws of In., Ex., and Con. (also applicable to Emotional and Volitional Acts) being physiologically specific and individualised—as indicated to me by my Discovery, and by me verified in their nature and action, by frequent trials and experiments extending over many years—are, in Origin, Process, and Justification, totally unlike what one might theoretically or speculatively imagine the operations of the intellect must be. The publication of these trials and experiments will interest students of Mental Physiology. I will mention only one—the case of a gentleman who for 10 years had tried at various times to recall the name of a playmate at school whom he had not seen for 45 years. After a slight Physiological preparation, designed to make him recall past impressions more readily, I proceeded to sound a set of words and I at once revived the lad's name by mere Inclusion by Sound—and a weak one too—since, although the *vowel* sound was the same in both

cases, yet in each it was prefaced by a different consonant! But let the Pupil regard as an Inclusion by Sound only that in which the initial consonants (if the syllables be preceded by consonants) are the same, and the vowel *sounds* are also precisely alike. To show the difference between *weak* and *vivid* Inclusions by S., this direction is violated several times in the Heptarchy Series, and in the Dough, Dodo Series—as Enough, Muff; Edred, Dreadnought, &c.]

[The following remarks are not to be read except by those who have studied Mental Science:—]

Errors of Psychologists.—(1) Psychologists declare that Memory is an affair of the Intellect, and include it amongst the Intellectual Powers! whereas Memory is wholly different from any Intellectual Act. If Memory were an affair of the Intellect, then *men of great intellect would have the most powerful general memories in regard to all subjects whatsoever!* but the reverse is the rule and the exceptions occur only once or twice in a century, as in the case of Macaulay for instance. If Memory were an affair of the Intellect, then idiots would have no memories at all; and yet they often possess Phenomenal Memories.

(2) Psychologists often confound the Nature of the Memory with the Laws of Intellectual Association!! They confound the *associating* Act or Process with the Act or Process which *conserves* or *records* the Association, as well as with the Subsequent Act which *recalls* the record to Consciousness. When any New Impression reaches the brain, it cannot become *associated with* or *coalescent with* Previous Impressions unless those Previous Impressions *have been preserved, kept in existence*; and it is this Receptive and Conserving Power that constitutes the First Stage of the Memory. Association is therefore impossible without the Pre-existence of Memory. As a matter of fact, Memory is distinct from and anterior to Intellectual Association, as it exists in infants before Intellect is developed, and sometimes in a high degree in idiots who evince only a modicum of Intellect, and even in the case of the very lowest animals!!

(3) Instead of Memory being a Distinctive Peculiarity of the Intellect, it really has nothing intellectual in it; but it is a primordial function or peculiarity of every nerve cell or ganglion, causing that cell or ganglion to *keep a record, through molecular re-arrangement, of every act or operation or modification or movement that takes place in it*. Every cell is its own Autobiographer. The traces or History of every Mental Act, whether it be an act of the Propensities, of the Sentiments, of the Intellect, or of the Will, are *preserved or recorded* in the cells concerned in that Act; and afterwards the SOUL reads that record: and this reading of the First Impression constitutes the *reviving* or Second Stage of the Conscious Memory.

(4) How, then, is Memory related to Intellectual Association? Why, Intellectual Association cannot *exist* or take place *without* it, it *preserves* the association and *revives* it, as it does all other Mental Acts or States.

(5) The Laws of In., Ex., or Con., are quantitatively and qualitatively different from the Psychological Laws—The latter are confined to the Intellectual Operations only—The Laws of In., Ex., and Con., including Intellectual Operations, but in an operating sense unlike the Psychological Laws, also include all Volitional and Emotional Acts or States, as well as that never absent underlying Condition that may be called the Organic Factor; and (this fact, which I discovered, is of supreme and unspeakable importance) the Memory *retains* what takes place in the mind *directly* and *immediately* in conformity to the Laws of In., Ex. and Con., *with infinitely greater ease and certainty* than it does any other mental acts. Another fact which I also discovered, and which is of the most transcendent importance in *training* and *developing* the Memory, is that the learning and reciting forwards and backwards of a series of words arranged in conformity to In., Ex. and Con., invariably strengthens the Natural Memory in both its stages to the highest attainable degree. It is for these reasons that I call In., Ex. and Con. the "Laws of Memory" *par excellence*.

(6) The theory of Association, as given by Psychologists, has not a leg to stand on. The Law of Similarity is said to enable one Presentation to *revive* another that is *like* it. A present Impression recalls an absent Impression, because of the reviving power which dwells in its *similarity* to that absent Impression. Yet all Psychologists agree that one Impression cannot be *felt* or *cognised* as *similar* to another unless both are *present* to the consciousness at the same moment! Thus, the Law of Similarity demands that the *revived idea* shall be both *in* and *out* of consciousness at precisely the same instant!! In other words, that an Idea can *operate* and exert all the functions and powers of a Similar before it *is* or *becomes* a Similar!! The Justification of the Law of Contiguity is equally absurd. Without more than alluding to the fact that this Law demands the co-operation of the supposed Law of Similarity, it will be clear that neither "Association" nor "Contiguity" actually occurs amongst the operating factors; for the Law claims that when two unrelated Mental States have occurred together, or nearly so, then the subsequent co-

currence of a Mental State like one of the former tends to revive another Mental State like the latter of them—for no sane man can contend that the recurring state *is* either of those first named states! All must see that the two first named states were never *associated*; and, although they were contiguous, they were never either of *them* afterwards revived. The *revived* state was never either *associated with* or *contiguous to* that which revived it! and the *reviving* state was never contiguous to, or associated with, either of the two previous states!! Finally, Psychologists who deny that Contrast is an independent principle of association, still maintain that all our knowledge is of "doubles," and that we cannot know "any single thing" without, at the same instant, knowing its "relative opposite"!!! After all this misreading of Nature, let us no longer look to these blind guides, these confident introspectionists, who are forever grinding over the same eternal bag of sand; but let us enter the field of *practical experiment* with the Laws of In., Ex. and Con., and we shall soon find that they possess a *marvellous associating power*: and, after having had considerable practice with them, we shall discover that we have already made *great progress* in the Art of Never Forgetting.

(7) Psychologists did not suspect that the Laws of In., Ex. and Con. (of the extent and of the *modus operandi* of which they are ignorant) could be utilised in the work of the Memory, as indicated above (5); but, what is more important, they never suspected the existence of that higher, broader, deeper, grander Association which I call Synthetic Association, and which I myself discovered, and which, as a Device for Memorising as well as a Method for Memory-Training, the Pupil will find is wholly incomparable. But it is indispensable that the Pupil should *first* master this Lesson.

(8) Have Psychologists then done anything to merit our gratitude? Yes; and we can never sufficiently repay them for their thoroughly disinterested study of mental operations, with the sole aim of ascertaining what is the true manner of those operations. They have not sought to turn their knowledge to any personal advantage or to find out any utility to which their investigations might lead. Let them still persevere, not neglecting the modern science of Mental Physiology. The latter cannot interpret the facts it reveals without the aid of Psychology, and Psychology is not the whole truth unless supplemented by Mental Physiology. Whoever pursues both these sciences together can be sure of advancing true Mental Science to the utmost of his ability. And if he can add to existing knowledge only one new fact in Mental Science, he will be a greater Benefactor of Mankind than if he were the most successful Politician, Railway King, or Military Captain of his time.

Space fails me to go into the exposition of what I call **PHYSIOLOGICAL Redintegration**. Redintegration, from the *Metaphysical* point of view, was first suggested by St. Augustine of Hippo. [*Confessions*, lib. X. c. xix.] But, the meaning and mode of using the three Laws of Analysis are all the Student requires to know in this Lesson.

(1) **IMPORTANT**—My ambition is to make everyone of my Pupils, *without a single exception*, a perfect memorist. I never have any difficulty with a Pupil who has been in the habit of regular study. Such persons enjoy my lessons, and their letters to me in regard to the different lesson papers are full of gratifying praise and intelligent appreciation. These always become Memory Athletes. But my ambition meets with some discouragements sometimes in the case of Pupils who have *not acquired as yet* the habit of regular study, and particularly in the case of those who are troubled with Mind-Wandering. The learning of the exercises in this lesson and the daily reciting them forwards and backwards establish the habit of regular mental work, and at the same time help to cure the worst cases of Mind-Wandering. The difficulty, however, is to get these persons to DO these exercises in this manner. Not accustomed to do anything methodically and thoroughly, they soon weary in attempting to do regular work on this Lesson. I have to constantly remind them that mastering my System requires in *their case* more application and fewer excuses—not promises, but performance. Hence these constant reminders look like scolding. But they are not so intended. They are not, in fact, intended at all for the genuine Students—but only for those who desire the improvement of their memories, but think they are unable to co-operate with me to gain this improvement; who will talk by the hour as to their fervent wishes to secure the benefits of my System, and yet who will not spend five minutes every day in studying it. Some misanthropes say, "Why care about them, then?—They possess feeble brains—poor innutritious blood, and they were born only to be 'hewers of wood and drawers of water.'" But my experience is that the weakest specimens of humanity, if above idiocy, can attain to student power and high improvement, if I can only get them to master the simple but invigorating exercises of my System. Hence, my ambition is aroused and spurred on to transform these self-neglecting Students into higher types of men and women—to make them, in short, genuine scholars and trained thinkers. Therefore, I again and again invite and reinstate them to shake off irresolution and excuse-inventing, and for once make a determined effort to enjoy the luxury of study and reap the reward of mastering the Art of Never Forgetting.

FOURTH EXERCISE.

QUESTIONS ON RECOLLECTIVE ANALYSIS.

The following Questions should be carefully read and the Answers fully thought out—and if the Pupil's time admits of it, the Answers should be written out and sent to me with the prescribed exercises. You are not asked to answer the Questions from memory, but to write the Answers after finding out the information in the Lesson. No matter how gifted the Pupil may be, he will find great benefit from working out with painstaking the Replies to all the ensuing Questions :—

☞ If the Pupil is at all troubled with Mind-Wandering, let him not fail to write out all the Answers to these Questions and send them to me.

1. What objects are attained by learning my System ? Can these be attained *without learning it and doing the exercises required* ?

2. What will prevent anyone being able to master my System ?

3. What is the Definition of Memory ? Does Mind-wandering allow of any good first impressions ? Is there anything then for Memory to recall ?

4. What is necessary, first, then, in the case of persons afflicted with Discontinuity, before they can hope to master my System ? What course should they pursue in studying my Lessons ?

5. Of what are Mind-Wanderers sometimes strangely ignorant ?

6. Is there any magic about the "Art of Never Forgetting" ? How may it really be described ?

7. On what condition alone does the Pupil receive his next lesson from me ?

8. On what is my System built ? And what kind of a Method is it ?

9. What is the Physiological reason why Memory can be *strengthened by practice* ?

10. What are the two stages of the Natural Memory ?

11. What does every original impression vibrate or excite ? And through what principles ?

12. In *recalling* any original impression, *from* what do we pass ? *To* what do we pass ? *Through* what do we pass ?

13. Are the notes on pages 46 and 47 to be read by those who are ignorant of Mental Science ?

14. What does "Inclusion" indicate ? Give examples of Inclusion—of *whole and part*, of *genus and species*, of *abstract and concrete*, and of *similarity of sound*.

15. What does "Exclusion" mean ? Why is the term "Exclusion" appropriate ? Give examples of Exclusion.


16. What does "Concurrence" mean ? Have words, related by Concurrence, any relation to each other *necessarily* ? Give examples of Concurrence.


17. Where only is Recollective Analysis available ?


18. Where, on the other hand, is Synthesis available ?


19. What exercise on the Three Laws of Recollective Analysis should you do before going further ?

And in this way the Pupil can write out and answer his own questions on the rest of this lesson.

 On what condition alone do I deal SEPARATELY with the Members of a Correspondence Class?

 What should Private Pupils by Correspondence do in every case?

 In answering the foregoing Questions, *instead of repeating the Questions*, use merely the corresponding numbers, and then I shall know in every case to what Question each of your replies relates.

 If the Pupil does not possess perfect concentration and a thoroughly disciplined mind, let him *re-read* with the **UTMOST PAINS-TAKING** the whole of this lesson, and he will derive great benefit from such a re-perusal. Until he has mastered the Loisetian Method of Study, he will find that many most valuable ideas escape his notice in a single reading. Many first-class students have acknowledged that they did not absorb and appreciate the full power and utility of this lesson until five or more perusals of it.

MNEMONICS.

[This chapter is to be carefully read only. Nothing in it is to be memorised.]

The distinctive **PECULIARITY** of Mnemonics is its imaginative, story-telling, picturing method of "Associations," and that climax of Artificiality, its Wheelbarrow or Key!!

There are only two kinds of Mnemonical "Association." (1) The story-telling, phrase-making method. To show exactly what this is, I quote from the ablest work on Mnemonics ever published, Maclaren's "Systematic Memory," 3d Edition. To connect together and memorise the following words: "Crew, Tree, Ape, Exodus, Fire, Leaf, Star, Water, Archer, Pin, Crystal, Rug, Back, Pen, Nose," he invents the following story, which, when committed to memory, he assures us will enable one to recite the series from Crew to Nose:—

The Mnemonical Story Method!!

"The *crew* of a vessel once came upon a *tree*, among the branches of which was an *ape*, the only one left since the inhabitants made an *exodus*, owing to *fire*. This tree had only one *leaf*, and a solitary *star* was reflected in a pool of *water* underneath, beside which stood an *archer* trying to thrust a *pin* through a ball of *crystal*. He had a *rug* dangling down his *back* and a *pen* through his *nose*."

(2) To teach the *picturing* method, he shows how to learn by heart the following series of words: "Horse, Luton, Bridge, Man, Coat, Fork, Book, Mouth, Cicero, Wall, Cherry, Door, Mother, Cellar":—

The Mnemonical Picture Method!!

"Your Panorama will probably run something like this: Riding a *horse* [you can easily picture yourself riding] over *Luton Bridge* [make your picture] I saw a *man* [picture] with a *coat* on his arm [picture], he carried a *fork* in his hand [picture] and a *book* in his *mouth* [picture] which told of *Cicero* climbing over a *wall* [picture] and stealing a *cherry* [picture] that grew near the *door* of his *mother's cellar* [picture]. Connecting these words in some such absurd way as the above, you will find no difficulty in repeating them consecutively. The reader, who will here fairly test this experiment, will be agreeably surprised to find himself already, in a degree, master of our Science" [p. 48].

To test my accuracy, I recommend the Pupil to buy the book, published by Pitman & Co., 20, Paternoster Row, London, price 1s.

A LEGITIMATE USE OF THE IMAGINATION

in education is to enable the Pupil to realise, or picture to the mind, a *description* of persons he never met or scenes he never witnessed! When Macaulay read an historical account, he endeavoured to call up in mental vision the objects described; if a person, his height, look of face, style of dress, general appearance, &c., &c.; in other words, he tried to realise the force and meaning of every epithet, exactly how the person looked, as if he had his photo. before him or really saw him. As with persons so with scenes, battlefields, &c., &c. He thus secured as vivid a First Impression as was possible in the absence of the things described. How different the manner of the ordinary Student who is cramming for history examination! The latter seldom tries to reconstruct to his mind's eye the persons or scenes described. He hurries through them very much as he would hasten past an open drain! or the most he does is to memorise the mere words! These descriptions have thus been to him only so much gibberish. The power of realising the past and distant is a most potent force in self-education and in all education, because the Pupil obtains in this way the most vivid possible First Impression. But the Mnemonical use of the Imagination is for a different purpose, and it operates in a different way.

When the mnemonist *invents* stories or mental pictures, to aid the memory as he claims, he is not reviving his own experiences nor trying to construe to his mind the experiences of others, but he is perverting the use of his imagination by trying to picture as together what never existed together; in trying to imagine as true, what he knows is false; in trying to imagine as fact, what he knows is fiction; in trying to invent unnatural juxtapositions so ridiculous and absurd as to disgust the common sense even of the fabricator!! He must picture to himself that he sees an *archer* trying to thrust a *pin* through a ball of *crystal*!! with a *rug* dangling down his *back*!! and a *pen* through his *nose*!! He must imagine that he sees a man with a *book* in his *mouth*!! that tells of Cicero climbing over a *wall*!! and stealing a *cherry*!! that grew near the door of his *mother's cellar*!! Hundreds of pupils have admitted to me that even a week's use of these Mnemonical Methods had created in their minds a morbid action of the Imagination. They began to feel as if they were living in a world of Unreality—that they were leading a life of Shams and Make-Believe! and that they found themselves becoming Absent-Minded on all occasions and perpetual Day-Dreamers, and that as they received no vivid First Impressions, their memories became weak and well-nigh ruined. Such is the usual result of this perversion of the Imagination.

That the Pupil may contrast these Methods with my Method of learning the Presidential Series, I subjoin an application of both of them to that series.

The Story Method applied to the Presidential Series!!

"A "President" of the United States was once sauntering meditatively along, when he ran up against an absent-minded military "Dentist," who putting himself into a swordman's attitude at once

exclaimed, "Draw!" The alternative presented to the President was to fight or "To give up," and he decided upon the latter course, since he deemed it no "Self-sacrifice" to his honour to decline to contend with a tooth extractor. And, speaking of the great quality of self-abnegation, we find it best exemplified in "Washington," who, if he was as pure in personal habits as in moral character, must always have indulged in a "Morning wash." As he did this indoors, it made no difference to him whether there was "Dew" on the grass or not. Yet a gardener always takes great interest in a shower of morning mist because he knows it will fall on his "Flower beds." Whence, on one occasion, a poor flower girl "Took a bouquet" without asking leave; but she was discovered and arrested before she left the "Garden," out of which she was led in disgrace—as Eve originally departed from "Eden," in company with her consort in crime, Adam—from whose name the modern name of "Adams" was undoubtedly derived.

But the true Mnemonical mode of memorising such a series is by "associating" them to the words of their Key. A Key is 100 or more words that have been learned by more hard work than it takes to master my whole System. These words are localised in Pegs or Places on the floor, walls and ceiling of rooms, and then, whenever the Pupil wishes to learn anything, he "associates" in one or other of the foregoing ways each separate word, fact, or sentence, to the successive words of the Key, and then he recalls his Key-words in succession, and, if he remembers his stories or pictures, he can recite the series thus "associated." The first 13 words of Gregor von Feinaigle's Key were as follows:—[1] The Tower of Babel. [2] A Swan. [3] Mount Parnassus. [4] A Looking-Glass. [5] Throne. [6] Horn of Plenty. [7] Glass-blower. [8] Midas. [9] Narcissus. [10] Goliath or Mars. [11] Hercules. [12] David. [13] Castle. Now I give the Key mode of memorising the first 13 words of the Presidential Series.

The Story Method and the Key!!

1. The "Tower of Babel" was built 4086 years before the first "President" of the United States was sworn into office. 2. The hotel called "The Swan" was kept by a man who in early life had in vain tried to become a "Dentist." 3. From several points on "Mount Parnassus," a poetical landscape painter might view some very fine scenes and, if at leisure, might sketch or "Draw" one on the spot. 4. When a monkey sees himself in a "Looking-Glass," and puts his hands behind it to find the original, he always has "To give up." The occupant of a "Throne" has sometimes been known to exhibit great "Self-sacrifice." 6. A "Horn of Plenty" would have been welcome to "Washington" when his army was starving at Valley Forge. 7. Although a "Glass-blower's" occupation is not particularly untidy, yet, out of regard to common decency, he ought always to take a "Morning wash." 8. "Midas" would have much preferred to sleep out in the "Dew," to wearing asses' ears. 9. "Narcissus" was, owing to his vanity, transformed into the principal ornament of a "Flower bed." 10. "Goliath" expecting to conquer David in their memorable duel, in anticipation of victory "Took a bouquet." 11. The statue of "Hercules" should always occupy the place of honour in the "Garden" of

a prize-fighter. 12. We have no reason to believe that "David," if he had been placed in the garden of "Eden," would have overcome the temptation of the serpent. 13. No antique "Castle" was in existence in America when John "Adams" assumed the office of Chief Executive of the United States. [The Student must notice that it requires exceptional skill to invent such sentences, and a prodigious power of the Natural Memory, combined with much study of them, to *recollect* them. Hence, this Method demands talents which few possess, and imposes burdens which still fewer can carry, and the stories are remembered only a short time unless constantly repeated.]

The Picture Method and the Key!!

1. You must imagine that you are on the "Tower of Babel," and that you *see* the mass below you select a "President" who cannot keep order. 2. You must imagine that you *see* a "Swan" submitting to have an operation performed on his bill by a "Dentist." 3. You must imagine that you are on "Mount Parnassus," and that you *see* a would-be poet trying to "Draw" up the mountain a bundle of doggerel manuscript poetry. 4. You must imagine you are standing by a "Mirror" and can *see* a young lady gazing into it and resolving "To give up" tight lacing, because it makes the tip of her nose red. 5. You must imagine you can *see* Solomon sitting on his "Throne" and admiring the "Self-sacrifice" of the woman who was ready to let her rival own her child rather than see it cut in two. 6. You must imagine you can *see* a trumpet, shaped like a "Horn of Plenty," through which a trumpeter is sounding the Advance to the American Army, by the command of General "Washington." 7. You must imagine you can *see* a mad "Glass-blower" taking his "Morning wash" in molten glass. 8. You must imagine you can *see* "Midas" wearing out the tips of his long ears in flicking the "Dew" off the rose-tree buds. 9. You must imagine that you *see* a "Narcissus," which is the only surviving flower, in a patch of ground formerly cultivated as a "Flower bed." 10. You must imagine you can *see* "Goliath" bragging to his friends that he will have the easiest victory over the country-boy David, who, he asserts, never took a prisoner or took a man's life, or did anything more valiant than that he "Took a Bouquet" from some rustic rival. 11. You must imagine you can *see* "Hercules" stealing golden apples from the "Garden" of the Hesperides. 12. You must imagine you can *see* "David" trying to knock apples off the tree of knowledge with his harp, for which purpose he has climbed up the gate of "Eden." 13. You must imagine you *see* in a ruined "Castle," Eve and her husband eating apples, which he says are hers, and she says are "Adam's." (This Method is easy to all who are endowed with extraordinary activity of imagination, and ruinous to all, as it still further cultivates the fancy to a morbid degree and causes the mind to wander to a fatal extent. As an *aid* to memory it cannot be depended on at all. It may help for a few minutes or hours. For a longer period, only everlasting reviews can make it endure.)

Remark.—If the Pupil were to be taught by all the mnemonical teachers in the world, and to study all their published books, he would be given no other method of dealing with the first 13 words of the Presidential Series, except, perhaps, by barbarous doggerel rhyme and

idiotic punning. These Methods are what they call "associating" words or ideas together! These stories or pictures must be *invented* and *memorised*, and *recalled* every time you wish to recite the series!! It is possible, after recalling the stories or pictures a great many times, that a person possessed of a powerful natural memory could *recite* the series without recalling the stories or pictures. But the rule (there may be an occasional exception) is that the mnemonical *means* resorted to must *always* be recalled before you can revive what they were invented to unite together. On the other hand, when a Pupil has learned the Presidential or other Series by Analysis with one careful perusal, he can recite the series *BOTH* ways without thinking of the In., Ex. and Con., by which they are cemented!

Nor is this all. The practice of inventing these unnatural mnemonical stories, and making these unnatural mnemonical pictures, so cultivates the fancy, as to cause the mind to wander on all occasions.

On the other hand, *thinking out* the relations between words in any Analytical Series helps to enchain and interest the Attention, and the recital forwards and backwards strengthens both Stages of the Memory and both Functions of the Continuity.

One word more. I have never taught my System to a mnemonical teacher or author. Unless such a man is devoid of tricks and genuinely honest, he would only misrepresent my System. His Continuity, as a rule, is broken down. Making mnemonical pictures has made his fancy morbid, and he is known as "the absent-minded man." He cannot study, or control his Attention for any length of time. And he would look upon learning the Presidential Series as a mountainous task!! It would be, if he learned it by *his* System. And he has no *patience* to try to learn and practise another Method.

On the other hand, sometimes Pupils who have a bad Memory and a weak Continuity resort to a dozen or more cheap and worthless mnemonical books, and work, for perhaps months or years, at Keys and Picturing, until their mental operations are perverted by Mnemonical Artificiality, &c. Then they come to my Lessons, and prove incapable of looking at them, except through mnemonical spectacles. They read my instructions with a wandering mind and fail to grasp my meaning. (1) They jump to the conclusion that I use a Series, learned by Analysis, as a Key of Words or "Pegs," to tie or associate other words to! I never did, and I do not now do anything of the sort. (2) Some of them also misunderstand my System in another respect. Whilst the unprejudiced Pupil knows he can learn such a series as the Presidential Series by one *painstaking* perusal, 10 or 15 words at a time, he also knows that I recommend him to recite such a series learned by Analysis, both ways, once or twice a day for one month, as a means of developing and strengthening his Memory and Continuity. Some of these disjointed and crack-brained victims of mnemonics get the impression that a Pupil has to repeat over an Analytic Series once or twice a day for an entire month, in order to *LEARN* the series!! I trust my Pupils will not allow such misleading talk in their presence without correcting it. Of course it will not be right to quote any part of the series, or to state *how* it is learned (to anyone whom you have not known to sign my contract), but the remark can be made that the daily recitals are not made to *learn* the series, but only as a Memory and Continuity-Trainer, &c.

FIFTH AND LAST EXERCISE OF THIS LESSON.

LEARNING BY "ROTE" IS NOT LEARNING AT ALL.

"Cramming" is learning by heart, by means of endless repetitions, without *comprehension*. It is useless, except for a temporary purpose, for what is thus learned is soon forgotten. It is ruinous in results, because it promotes Mind-wandering to an alarming degree; and it is the most laborious way of learning, the hardest, the most tiresome and wearying, and it takes much longer time. Hence, in every way, it is to be condemned.

A little reflection will show that learning by heart in the usual way, by means of endless repetitions, is merely remembering *a series of sights* [words written or printed], or *a series of sounds* [words spoken], without any or the very smallest amount of comprehension, and the process is that of mere Concurrence. One of the many possible proofs may be seen in the statement of Dr. Maudsley, that he had seen an idiot at Earlswood Asylum who could read a column of the *Times* newspaper but once, and repeat the whole of it without mistake; and he had heard of one who could, after a single reading, repeat the column forwards or backwards. These idiots possessed the *visual word* memory.

These cases show that *memory* can be *perfect* with no comprehension of what is learned. The following is a case of *auditory word* memory mentioned by Dugald Stewart—"Philosophy of the Human Mind," chap. VI., sec. 2:—"I knew a person who, though completely ignorant of Latin, was able to repeat over thirty or forty lines of Virgil, *after having heard them once read to him*, not indeed with perfect exactness, but with such a degree of resemblance as (all circumstances considered) was truly astonishing; yet this person (who was in the condition of a servant) was singularly deficient in memory in all cases in which that faculty is of real practical utility. He was noted in every family in which he had been employed for habits of forgetfulness, and could scarcely deliver an ordinary message without committing some blunder."

This servant possessed a prodigious memory for auditory impressions for the mere *succession of sounds*. The reason he could remember the 30 or 40 lines of Virgil was, that he had to attend to the *sounds alone*, not being capable of understanding their meaning; but, in listening to a message, he had to try to grasp the meaning, and being doubtless troubled with mind-wandering and possessing feeble powers of *apprehension*, he could only succeed in giving the message as he had *understood it*, which was pretty certain to be more or less incorrect. And being probably very weak in visual sensations, he noticed few things and therefore got no vivid sight or eye impressions. These cases—and I could add many others well authenticated—prove conclusively that *rote* learning or *learning by heart* does not *necessarily* require or demand any intellectual comprehension of the matter thus learned.

My System insists on Pupils always first *understanding* the sentence

Analysis in its primitive sense applied to parts of sentences [not In., Ex., and Con.].

Analysis to secure comprehension; remembering is provided for later on.

or the matter to be learned; when that is done, *half the victory is gained*, and the rest is easily and quickly acquired. Simple sentences or propositions are readily understood—as, Iron is hard. Lead is heavy. Move the right foot forward; but suppose you have the simple sentence, “An Echidna is an Ornithodelphian.” In such a case, unless the Pupil resorts to a dictionary (he should never be without the best dictionary he can afford), this sentence will be a riddle to him until he learns the meaning of it by a special study.

But complex propositions are extremely hard to be comprehended at a glance. To comprehend such a sentence, let the Pupil analyse it, that is, take it to pieces; and then, having found the simplest form to which it can be reduced, let him go on, step by step, adding one idea or qualification at a time, until he has gradually, and with understanding, rebuilt the complex sentence, and in this way, if he goes through with the reconstruction two or three times from *memory*, he will have absorbed all the ideas of a sentence, however complex. Take the definition of Memory, “Memory is the revival of a past Mental Impression.” Its simplest form is—(1) Memory is a revival. Now add on one modification at a time from memory, till you reproduce the original sentence. In this way, you will have—(2) Memory is the revival of *an Impression*. (3) Memory is the revival of a *Mental Impression*. (4) Memory is the revival of a *past Mental Impression* [same as (1) FIRST IMPRESSION and (2) its REVIVAL].

Suppose you are studying Geometry, and you wish to fix *permanently* in your memory the comprehension of the proposition of Prop. I., Book I., to wit: “To describe an equilateral triangle upon a given finite straight line.” You take it to pieces and try to realise the *meaning* of each of its parts, thus: (1) A triangle. If you have learned the definition you know that a triangle is a three sided figure. &c. (2) An *equilateral* triangle. You now observe that it is a three-sided figure whose sides are equal. (3) *To describe* an equilateral triangle. You have merely to draw it or sketch it. (4) To describe an equilateral triangle *upon a straight line*. Here you see that you must draw it, not upon any part of the paper or board, but upon a straight line on that paper or board. (5) To describe an equilateral triangle upon a *given* straight line. You must draw it, not upon any straight line, but upon some particular straight line. (6) To describe an equilateral triangle upon a given *finite* straight line; not upon a line of unknown length but upon a line of definite length, &c. If you repeat these successive reconstructions a few times from *memory*, you *assimilate* the whole of that proposition and all its parts with pleasure and certainty.

Let us apply this method to the comprehension of the three laws, pp. 32 and 33. I. “Inclusion indicates that you realise or feel that there is an overlapping of meaning between two words, or that there is a noticed or recognised idea or sound that belongs to both alike.” You can begin in different ways; but, however you begin, or with whatever part, you always start with the simplest idea, and add on new ideas successively. (1) There is an idea. (2) There is an idea *or sound*. (3) There is an idea or sound *that belongs to both*. (4) There is an idea or sound that belongs to both *alike*. (5) There is a *noticed or recognised* idea or sound that belongs to both alike. (6) *There is an overlapping of meaning or* there is a noticed or recognised idea or sound that belongs to both alike. (7) There is an overlapping of meaning *between two words*, or there is a

noticed or recognised idea or sound that belongs to both alike. (8) *You realise or feel that there is an overlapping of meaning between two words, or that there is a noticed or recognised idea or sound that belongs to both alike.* (9) *Inclusion indicates that you realise or feel that there is an overlapping of meaning between two words, or that there is a noticed or recognised idea or sound that belongs to both alike.*

THREE REMARKS.—(1) In meeting new or unfamiliar terms, look up in the Dictionary, not only the definition, but the derivation or what the word is made up of. You thus analyse the term—*e. g.*, Inclusion is from “in,” which means *in* or *within*, and “claudere,” which means to “shut.” Literally, it means “what is shut up or within.” This is always a help, and sometimes a great help, in fully understanding the meaning of unfamiliar, scientific or other words, even when one is ignorant of the language from which the English word is derived. The explanation of the *origin* helps. (2) The practice of this method of analysis, if continued for some time in regard to sentences of complex meaning, so trains the apprehension that the mind will hereafter more quickly and fully seize the meaning and exact import of new propositions, even in cases where the method is not consciously applied. (3) In the case of this Definition of Inclusion [as well as in all other cases], if the Pupil can repeat from *memory* all the clauses in succession from (1) up to (9) a few times, he will retain a clearer and more vivid comprehension of that definition than if he had repeated the entire definition a hundred or more times in the usual manner.

II. “Exclusion means that you observe that there is an antithesis, or that one word excludes the other, or that both words relate to one and the same thing but occupy opposite positions in regard to it.” (1) There is an antithesis. (2) *You observe that there is an antithesis.* (3) *Exclusion means that you observe that there is an antithesis.* (4) Exclusion means that you observe that there is an antithesis *or that one word excludes the other.* (5) Exclusion means that you observe that there is an antithesis or that one word excludes the other, *or that both words relate to one and the same thing.* (6) Exclusion means that you observe that there is an antithesis or that one word excludes the other, or that both words relate to one and the same thing *but occupy opposite positions.* (7) Exclusion means that you observe that there is an antithesis or that one word excludes the other, or that both words relate to one and the same thing but occupy opposite positions *in regard to it.*

REMARKS.—After carefully studying the foregoing Analysis, let the Pupil, *before looking at my Analysis of it*, deal in a similar manner with the definition of Concurrence, and send his Analysis to me for criticism. And with the exercises on each of the subsequent lessons, let him send me a few sentences of his own selection, analysed. And let him not begrudge the time spent in this matter, however busy he may be. It is a very good preliminary exercise of mind to qualify him for rapidly and almost unconsciously absorbing the meaning of all he hears or reads. There is another practice which is most efficacious in creating the habit of quick and exact apprehension of what one hears, sees or reads. It is the practice of preparing questions and answers on what one is studying. In this and the next lesson, I have drawn up a few questions, to which I hope the Pupil will send me his own written replies. But, in the remaining lessons, I trust the Pupil will send me his own questions and answers on them, and let them be as exhaustive and searching as possible. And if time fails him to do both the questioning and analysing of sentences, let him on no account neglect the latter, but let him send me a full set of questions and answers on these four pages. In the next and subsequent lessons, I shall present a New and Original Method of rapidly *memorising* prose or poetry.

III. “Concurrence is the felt relation between two ideas or impres-

sions which we have sensuously experienced or thought of together, or almost simultaneously, or history has told us are together, although having no relation necessarily." (1) Concurrence is the relation between two ideas. (2) Concurrence is the relation between two ideas or *impressions*. (3) Concurrence is the *felt* relation between two ideas or impressions. (4) Concurrence is the felt relation between two ideas or impressions *which we have experienced*. (5) Concurrence is the felt relation between two ideas or impressions which we have experienced or *thought of*. (6) Concurrence is the felt relation between two ideas or impressions which we have experienced or thought of *together*. (7) Concurrence is the felt relation between two ideas or impressions which we have experienced or thought of together or *simultaneously*. (8) Concurrence is the felt relation between two ideas or impressions which we have sensuously experienced or thought of together or *almost simultaneously*. (9) Concurrence is the felt relation between two ideas or impressions which we have *sensuously* experienced or thought of together or almost simultaneously. (10) Concurrence is the felt relation between two ideas or impressions which we have sensuously experienced or thought of together or almost simultaneously, or *history has told us are together*. (11) Concurrence is the felt relation between two ideas or impressions which we have sensuously experienced or thought of together or almost simultaneously, or history has told us are together, *although having no relation necessarily*.

REMARKS.—The dullest person ought readily to see why this method secures the comprehension of a complex sentence or proposition much more quickly and thoroughly than the method of endless repetition of the entire sentence. Every impression reaching the brain becomes affiliated on to or dovetailed in with its like, similar, or analogue that is already there registered. A single or simple idea is more likely to find its like or analogue at once and without delay than that idea will find its like or analogue if modified or mixed up with other ideas. When the mind has absorbed a simple idea, it can easily absorb that idea in connection with another idea. Then these two ideas can easily receive an accession of another idea. In this way ten modifying ideas can easily and successively be absorbed, when if the eleven ideas altogether had been presented, they could not have been understood at all. If a Chinaman looks for the first time at a page of an English book, it is all confusion to him. He recognises nothing, only slight differences between the letters and words. But if he learns a few letters of the English Alphabet, and then returns to that page, he will now recognise those letters which he has learned. When he has learned the entire English Alphabet, he will recognise all the letters on the page, but he will not know the meaning of the words. When he has learned 2000 or 3000 English words, he will probably be able to understand the entire page, which formerly had no meaning to him. The human mind must always proceed from the simple to the complex, and in this way, and in this way only, can it comprehend and understand new and hitherto unfamiliar ideas or knowledge.

PART II.

SUPPLEMENT TO RECOLLECTIVE ANALYSIS.

My system is learned, not from *understanding* the THEORY of it, but solely and exclusively by DOING the EXERCISES.

PREPARATION FOR MEMORISING DATES OR ANY NUMBERS WHATSOEVER.

HISTORICAL PREFACE.

(*Not to be read except when reviewing this Lesson.*)

The Masorites—those indefatigable commentators—undertook, some 1200 years ago, to make an accurate inventory of the contents of the Hebrew Bible. They counted chapters, paragraphs, verses, even all the words and letters in each book. The result of their investigations can be found printed at the end of every book of the Hebrew Bible. It is unnecessary to add that all this painstaking was done to prevent corruption or alteration of the original text of the Sacred Records.

Now comes the remarkable fact that, *in order to help the memory* they represented the number of chapters, verses, &c., by means of a familiar sentence, taken at random from some portion of the Bible, the *numerical value of the consonants* in such a sentence giving the exact number to be remembered!! An entire sentence was seldom required for this purpose, and when only a part of a sentence sufficed, the particular words appropriated to express the number were printed in larger and bolder type, while the rest of the sentence appeared in smaller type. See almost any Hebrew Bible.

Thus, we know that the Jewish Rabbis anticipated and gave the exact model of all modern Figure Alphabets more than 1200 years ago.


Modern nations have all imitated the Jewish method of expressing numbers by the consonants of *words*, as more easily remembered than the figures themselves. Dr. Richard Grey, who published his *Memoria Technica* in 1830, expressly admits that the Hebrew practice suggested to him his own Figure Alphabet, and numerous other persons, learned in the Hebrew tongue, doubtless made Figure Alphabets for their own use without ever taking the trouble to publish them.

Previous to the time of Leibnitz, a Figure Alphabet was in use in Europe. By whom it was *originated* is not known. Leibnitz himself did not know. It was probably a Hebrew scholar. The earliest figure alphabet was a downright jargon. The first, so far as is known, who *published* a Figure Alphabet, was Stanislaus Mink von Wemsheim or Winkelmann. He made a Mnemonical Key of the 12 Signs of the Zodiac. He then divided each sign into 30 subsections, making in all 360

Key Localities!! If his practice was similar to that of modern mnemonical authors, who rarely, if ever, acknowledge where they get their figure alphabets [in order that their pupils may suppose that they invented the device], and we have no occasion to think it was different, then we have an additional reason for presuming that he got his alphabet from some older and now unknown source, if not direct from the Hebrew Bible. His mode of expressing the date of his own publication, 1648, was as follows:—"aBeo iMo aGoR." At this time Mnemonics had become such a stench in the nostrils of the public, from its cultivation of unnatural Keys and Artificial Associations, that its votaries could not have secured any attention to their imitation of the Hebrew practice. But the philosopher Leibnitz, finding a Figure Alphabet in existence—probably the same one that Winkelmann had borrowed—quickly saw the utility of such a device, and at once popularised it and translated figures into *words*. He recommended it as a "secret how numbers, especially those of chronology, can be deposited in the Memory, so as never to be forgotten." This endorsement of the Method of translating figures into words by the great thinker Leibnitz attracted attention to the device, as soon as his opinion became known. And at once numbers of chronologists and mnemonists set to work, each one to make a Figure Alphabet for himself; and the result has been that every conceivable form of Alphabet has been used, and it would be impossible for anyone to devise any new collocation of consonants. All possible forms have been anticipated over and over again. Accordingly, I have adopted what seemed to me to be one of the best, and I have always acknowledged that it was owing to the skill and recommendation of Leibnitz that the modern un-Jewish European world has had the benefit of a practicable Figure Alphabet. Yet, when I come to *deal* with the words into which I translate figures, my Method is unlike that of Leibnitz himself or of any other teacher of memory!! And, in fact, it is of very little account what particular alphabet is used, *provided* it is made perfectly familiar. It is in ASSOCIATING the *figure-word* with the *event* to which it belongs that the essential difference lies; and, in this respect, my Art of Never Forgetting is wholly incomparable.

Reflection will show that, in translating *figures* into *words*, I am not introducing an "Artificial" element into my System; because numbers applicable of themselves to everything in general, and meaning nothing in particular, are pure mental conceptions; and, in transforming them into words or phrases, I am practically only turning *Abstractions* into *Concretes*.


FIRST EXERCISE.

 THE FIRST THING TO BE ACQUIRED IS TO LEARN THE EQUIVALENTS IN CONSONANTS OF THE CYPHER AND THE NINE DIGITS, AS SEEN IN THE TABLE BELOW. THE EXPLANATIONS WILL SHOW YOU HOW TO DO IT.

The explanations and examples will make this acquisition very easy.

FIGURE ALPHABET.

0	1	2	3	4	5	6	7	8	9
S	t	n	m	r	l	sh	g ^{hard}	f	b
	th					j	k		
Z	d					ch ^{soft}	c ^{hard}	v	p
C ^{soft}						g ^{soft}	q		
							ng		

If you imagine the capital letter S cut into two parts, and the bottom half attached to the top half, it would make a nought (O). That is why S is translated into 0. C^{soft} as in *cease* has the same sound as S, and Z is a cognate of S—that is, it is *made by the same organs of speech in the same position* as when making S, only it is an undertone, and S is a whispering letter. Besides, Z should represent O because it begins the word Zero—C^{soft} should also stand for O for the additional reason that C^{soft} begins the word cypher. Thus, in translating a word into figures, we always turn S, Z or C^{soft} into (0); or, in turning figures into words, we always translate a nought (0) into S, Z or C^{soft}. We use “t” to represent 1, because “t” has one downward stroke, and we also represent 1 by “d,” because “d” is cognate of “t.” We represent “n” by 2, because “n” has two down strokes, “m” by 3, because “m” has three down strokes, “r” by 4, because it terminates the word *four* in several languages, and “l” by 5, because in the Roman alphabet L stood for 50, and we disregard the tens, and we make it stand for 5 or the first figure of 50; “f” by 8, because you can imagine  to be an eight elongated, and “v” is the cognate of “f.” “b” and “p” represent 9, because 9 is only an inverted “b,” and “p” is its cognate.

The phrase "6 *Shy Jewesses chose George*" gives through its initial consonants the representatives of 6, viz. : sh, j, ch, and g^{soft}. The phrase "7 *great kings came quarrelling*" gives the letter equivalent of 7, viz. : g^{hard}, k, c^{hard}, and q, also the final ng. This mode of expressing a new meaning by the consonants of a word was practised by the ancient Hebrews.* RALBAG was a word *invented* to indicate four words by its consonants. Thus, R=R—abbi, L=L—evi, B=B—en, G=G—erson.† The representatives of the figures from 0 up to 9 are given in the consonants of the first phrase below, and in the initial consonants of the ten subsequent phrases following the figures:—

"Sidney Merlish gave a bow."

- | | | |
|--------|-----|--------------------------------------|
| Naught | (0) | <i>So Zealous Ceases.</i> |
| One | (1) | <i>Tankard this Day.</i> |
| Two | (2) | <i>headed Nightingale.</i> |
| Three | (3) | <i>Meals.</i> |
| Four | (4) | <i>Roadsters.</i> |
| Five | (5) | <i>"Lamps."</i> |
| Six | (6) | <i>Shy Jewesses Chose George.</i> |
| Seven | (7) | <i>Great Kings Came Quarrelling.</i> |
| Eight | (8) | <i>Fold Value.</i> |
| Nine | (9) | <i>Beautiful Poems.</i> |

This explanation is a help to remember the *letter values of the figures*. Another way to fix these values in mind for permanent use is to turn *words into figures*. This practice quickly enables you to *convert figures into words*, and to trans-

* A lady wished to remember the abbreviation L. K. Q. C. P. I. [Licentiate of King's and Queen's College of Physicians of Ireland], so she made this Phrase: "Licensed to Kill, Qualified to Cure, Patients Invited"!!!

† Here we see that the *same* consonants in the *same* word were used for two different purposes, one to spell the new Proper Name of Ralbag, and the other to indicate by a new use of the consonants that Ralbag was the Rabbi Levi Ben Gerson. This Hebrew practice was the undoubted origin of the *double* use of consonants to spell words, and, at the same time, to indicate figures by a new meaning given to the consonants. The same practice prevailed among the ancient Greeks. This Hebrew practice, besides giving origin to the Figure Alphabet, was availed of to make a secret Cypher. It was the origin of Acrostics. And it led to the use of words to express different degrees of the same thing and different persons bearing the same name, or Homophones in the case of Kings, &c., the initial letter being the same as that of the King, and the final consonant telling whether he was the first, second, third, &c., of that name. To indicate briefly the different English Henrys, for instance: Head = Hen. I., Hen = Hen. II., Hem = Hen. III., Hair = Hen. IV., Hall = Hen. V., Hush = Hen. VI., Hack = Hen. VII., and Hive = Hen. VIII. The number of ways in which these Henrys can be thus abbreviated by the use of this Hebrew Method is very large. As the *principle* of this Method unquestionably became the common property of the civilised world by inheritance from the Hebrews, it is rather presumptuous for mnemonical authors to claim that they *originated* the device. If it could be established that they *invented* it as well as the Figure Alphabet, without referring to the Hebrew practice, I should be delighted to award them due praise, but the proof points the other way. They have no right to *assume* the contrary of the fact.

late them back into figures. Facility will be attained before the 5 lessons are completed.

The great utility of this practice will appear when SYNTHESES is mastered.

As many mnemonists use the *same* Figure Alphabet which I use, the words chosen to represent the *same* dates may be the same in their books and in my lessons; yet, there is nothing *in common* in our SYSTEMS, as such, since the Figure Alphabet is not *their* invention, and since my Method of CONNECTING the Date-word to the event is totally unlike their Methods.

RULES.

Not to be glanced at or skipped, but to be carefully studied.

- 1.—Two consonants of the *same kind* with no vowel between, provided they have the *same* sound, treated as one consonant, as "ll"=5, "nn"=2, "rr"=4, dd=1, &c. But the two consonants have different values, in accident =70121.
- 2.—All *silent* consonants are *disregarded*, as "Ph" and "h" in "Phthisic"=107; "b" in "Lamb"=53, "Comb"=73, or in "Tomb"=13. "gh" in Bought=91; "k" in Know=2; "gh" in Neighbours=2940.
- 3.—The *equivalents* of the above consonants have the *same value* as the consonants themselves, as "gh" in "Tough"=18, "gh" in Enough=28; "gh" in Rough=48; "gh" in "Laugh"=58, "Lock"=57. "N" sometimes=ng=7; as in "Bank"=977; "n" in Bank has the sound of "ng"; n,g are not always taken together as one sound, and translated into 7, but are treated separately *sometimes*, as in engage=276.* X=gs or ks=70, as in example=70395; in oxygen=7062. Sometimes X=Z, as in Xerxes=04700, and then it=0. Ci and ti=sh, as gracious=7460; Nation=262. dge=g^{soft} as in Judge=66. Tch=ch=6, as in ditch=16 (it rhymes with rich=46). Ch sometimes=k as in Christmas=74030. S and z sometimes=zh, which is the cognate equivalent of sh^h=6,


* Pupils who have a poor ear for sounds sometimes fail to note when "n" sounds like "ng" and so means 7 instead of 2. Let them study the words "ringer" (474), "linger" (5774), and "ginger" (6264). The first syllable of "linger" rhymes with the first of "ringer," and not with the first of "ginger;" it rhymes with "ring" and not with "gin;" and if the first syllable of "ringer" is 47, the first of "linger" must be 57; but the second syllable of "linger" is "ger," while the second syllable of "ringer" is only "er." So "linger" is pronounced as if spelt "ling-ger," the "n" sounds like "ng." "Ringer" is pronounced "ring-er."

as in Pleasure=9564, and in Crozier=7464. Acquiesce=70, excrescence=7074020.

- 4.—No notice is taken of any *vowel* or of w (war=4) or y (yoke=7), or of h (the=1), except as part of ch or sh. Words like Weigh, Whey, &c., having no figure values, are never counted. If one word ends with, and the next word begins with, the *same* consonant, they are both reckoned, as That Toad=1111.

[Those who are interested in remembering fractions, &c., see p. 71.]

SECOND EXERCISE.

 Above all, let the Pupil *send me* his translation into figures of the Presidential and Dough, Dodo Series, and of the following words, which express the Dates of Accession of the Kings of England from Egbert to Victoria. And, after making this translation, he can send words that will translate any Dates in the 16th, or 17th, or 18th Century as an exercise in finding words to express figures:—

Fine oak...foaming...flock...vicious...fish show...fact...
post...panel...brass...birch...Belial...bailiff...pickle...
pack up...test him...destroy...duster...the stage...athe-
istic...dismal...howitzers...discern...it is Joshua...the
wise judge...deceiving...tootsies...hot oatmeal...tutelar
...the day of hope...dead baby...tin dish...Duncan...
damask...demoniac...demagogue...to imbibe...dry theme
...drawn in...tragedy...true fame...teraphim...tearful
...to lisp...tailoring...tall elm...dual life...Doge's home
...additional...too sharp...dutch loam...wide shelf...eat
jalap...two judges...dishevel...the chief abbey...tocsin...
doctor...thickening...dog shows...toughness...die famous
...day of maying.

The following are examples of words and phrases for the lengths of Rivers and heights of Mountains. The Pupil should translate them into figures, and send them to me for criticism. *How* the figure-words are to be *connected with the*

names will appear from the Paper on Synthesis. Let the Pupil send me other examples :—

Mississippi, *warm oven* ; Nile, *wordy essays* ; Volga, *narrow seas* ; Ohio, *town jail* ; Loire, *Lammas* ; Seine, *Argosy* ; Thames, *annals* ; Spree, *annoyance* ; Jordan, *an icehouse* ; Sorata (Andes), *Indian effigy* ; Popocatepetl (Mexico), *take a weak wife home* ; Mount Brown (Rocky Mountains), *whitish sauces* ; Mont Blanc, *idling half a day* ; Jungfrau, *the Mohicans* ; Righi, *all bustle* ! Konjakofski (Ural Mountains), *lumbago* ; Saddleback, *now giving* ; Ben Nevis, *wear your sash* ; Snowdon, *homologous*.

Authorities differ as to these lengths and heights. In each case I have accepted the dictum of Mr. A. Keith Johnston, F. R. S. E.—See the latest edition of his *Gazetteer*.

THIRD EXERCISE.

Send me a translation into figures of the following 71 sentences :

Mother Day will buy any shawl.
 My love, pick up my new muff.
 A Russian jeer may move a woman.
 Cables enough for Utopia.
 Get a cheap ham pie by my cooley.
 The slave knows a bigger ape.
 I rarely hop on my sick foot.
 Cheer a sage in a fashion safe.
 A baby fish now views my wharf.
 Annually Mary Ann did kiss a jay.
 A cabby found a rough savage.
 A low dumb knave knew a message showy.
 Argus up my fire rushes.
 A bee will lose life in enmity.
 A canal may well appear swift.
 Never have tidy Dick early.
 Has no fear to see a new ghost.
 A beam fallen at dizzy Lulu.
 We will be a sure arch in a new pier.
 Feeble are poems home-fed.
 A butcher ran off feet soppy.
 A college shall buy my mirror.

Shoot in a fury, ugly Sheriff.
 Naomi may give Jack half my tea.
 Shall we now cut Annie's topaz.
 Peter will shear a village hedge.
 Upon my ridges moor a fish.
 To soar lower may nudge a Jury.
 Find my map, my Chiswick.
 Now choose anew our better Eden.
 Coming near love kisses.
 Ji-Ji has jammed a whole leaf off.
 Take rough, fat, lamb-soup.
 A nice patch in a funny panel.
 Raise bad cattle, major.
 A magio fop knew a well opossum.
 Joses taught him my sole hymn.
 A sailor if vain has a rich joy.
 You allow no time for authorship.
 Let a pert lad teach us.
 A bear may muzzle a gun-case.
 My shallow cool pulp-tub.
 A lamb's pint of shady dew.
 Come off top, my newish ditty.
 A cup may dazzle at a haughty hovel.
 Refuse queer, rich, new muck.
 Baby Jenny wooing her pale cheek.
 Melt half a flakey lining.
 Any roof bought in New Cobham.
 Heave it off, my sooty deep robe.
 A tiny hoop of mamma shook a mummy.
 China warriors usually weigh each a share.
 A missive chosen at my ball.
 Stitches pin our ruffs.
 Going now amiss by our machine.
 Full looms push chains.
 No quail will shape my big pie.
 A heavy ship will soon annoy a new rock.
 Her puppy shone as a choice care.
 Bacchus may swear at any match.
 A shy heavy wife shut a bible to-day.
 Suasive weapons win him fame.
 Cuckoos untamed are touchy.
 We buried Dobson by five.

You love Annie Laurie, you wretch of a Doge.
He may pick up pipes, Rachel.
Picus is safe to accuse us.
No Pasha may deny my awaking him.
Folk may run his ferret home.
Escape it early to-day, if you may.
Paphia's legacy pay off wholly.

* * Translate the above 71 Sentences into figures, and send them to me for criticism. On no account fail to do this exercise.

* * Beware of violating the four rules on pages 62 and 63.

Translate the words in italics in this paragraph into figures. They express the specific gravities of some important metals, as given in Roscoe's Chemistry. [Here decimals are used.*] Osmium, *Nina Syringa*; iridium, *none serious*; platinum, *needy souls*; gold, *Toby sensual*; mercury, *Tommy sleepish*; rhodium, *tiny seed*; thallium, *a wedded Sappho*; paladium, *a dead seer*; lead, *doughty smudging*; silver, *this sore chafe*; bismuth, *a happy Savannah home*; copper, *a heavy spleen*; cadmium, *heave a satchel low*; iron, *oak scoop*; tin, *a wig snipper*; zinc, *hedge spittle*; antimony, *witch, seek a tomb*; aluminium, *new Souchong*; magnesium, *to scare him*; calcium, *the slow calf*; rubidium, *the solid wedge*; sodium, *speaker*; potassium, *savagely*; lithium, *sleepers*.

☞ Those who are familiar with the pronunciation of the Welsh language may send me the translation into figures of the following name of a Welsh village. It is the longest word in the modern world:—

**Llanfairpwllgwyngyllgertrobwillgerchwyrnbyllgog-
erbwillyanttysiliogogogoch.**


This word of 71 letters and 22 syllables means: "St. Mary's white hazel pool, near the turning pool, near the whirlpool, very near the pool by Llankilio, fronting the red rocky islet of Gogo."

OPTIONAL EXAMPLE,

SOLELY for those who understand ANCIENT GREEK.

The following is the longest word ever constructed in any Language, Ancient or Modern, and is from Aristophanes; it is given as an optional Exercise for Greek scholars only:—

* The pupil may skip this paragraph if not wishing to deal with chemistry or decimals. As to decimals see page 71.

 Λεπαδοτεμαχοσελαχογαλεοκρανι-
 With modern letters. Lepadotemachoselachogaleokrani-
 ολειψανοδριμυποτριμματοσιλφιοκαραβομ-
 ολειψανοδριμυποτριμματοσιλφιοκαραβομ-
 elitokatakechumenokichliepikossuphophatt-
 οπεριστεραλεκτρονονοπτεκεφαλλιοκιγκλοπε-
 operisteralektruonoptekephalliokigklope-
 leiolaγωσσιραιοβαφητραγανοπτερυγων.
 leiolaγωσσιραιοβαφητραγανοπτερυγων.

The following is the translation of the foregoing Greek word—

Λεπαδο-	Shell-fish-	-επικοσσυφο-	-black-bird-
-τεμαχο-	-fish-steak-	-φαττο-	-ring-dove-
-σελαχο-	-shark-	-περιστερ-	-pigeon-
-γαλεο-	-lamprey-	-αλεκτρον-	-cock-
-κρανιο-	-cranium-	-οπτεκεφαλιο-	-roast-comb-
-λειψανο-	-scrap-	-κιγκλο-	-water-ouzel-
-δριμ-	-pickle-	-πελειο-	-wood-pigeon-
-υποτριμματο-	-pounded up-	-λαγφο-	-hare-
-σιλφιο-	-assafœtida-	-σιραιο-	-syrup-
-καραβο-	-cray-fish-	-βαφη-	-sodden-
-μελιτο-	-honey-	-τραγανο-	-dainty-
-κατακεχυμενο-	-well-mixed-together-	-πτερυγων.	-wings.
-κιχλ-	-wag-tail-		

KNIGHT'S TOUR.—The object of this Problem is to conduct the Knight *diagonally* all over the Board from No. 1 or any other number, and to return to the point whence it started without its having touched twice upon the centre of the same square in its course. The Knight, if starting from No 1, will have to go over the following squares, as will be seen by inspection of the enclosed diagram :—

1	11	5	15	32	47	64	54
60	50	35	41	26	9	3	13
7	24	39	56	62	45	30	20
37	22	28	38	21	36	19	25
10	4	14	8	23	40	55	61
51	57	42	59	53	63	48	31
16	6	12	2	17	34	49	43
58	52	46	29	44	27	33	18—1.

The following unpronounceable and incomprehensible word is Dr. RICHARD GREY's method of expressing the above figures !—

TOUR b a b u b u t e f o i s o l o s
 y l y t u f a d a u n i b i p e f i n

u s a u d o l i z e z i p e d e k i k
 e b i s a n e l a z o b o k e t o z u
 l a u b u b u p o d u n u t a u t o
 k i b a s a u b e d a p i f o n o t u
 k u d o s e n o f e p i t a k .

This is given as a mnemonical curiosity, but not to be learned.

A mnemonical teacher who could not see the stultifying absurdities of the present artificial systems, remarked of such applications of Dr. Grey's system :—"Surely, at sight of such phrases ; at the cacophonism of such words ; and at the essay, I will not say of *retaining* them in the memory, but only of *pronouncing* them, the reader will have undoubtedly already decided that he would much rather attempt the mastication of a collection of millstones!!"

FOURTH EXERCISE.

The following series translates the Figures of the Knight's Tour into words, which the Student can memorize in one or two readings by Analysis (if he did not learn them in the First Lesson), and thereby be enabled to hand the accompanying Diagram—not this lesson paper—to anyone, and at his command recite the Tour, beginning at *any number he may name*, and proceeding *either way* to return to the point of beginning! The Knight's Tour is admitted to be the most crooked journey on record!!

In the list of words given below the figures showing the numbers of the squares are represented by *all the ~~s~~ sounded consonants* of the words.

It may be observed that, owing to the necessarily limited choice of words, the analytic relations between them are naturally less obvious than if the choice had been unrestricted. The less obvious, however, the connection, the better exercise it will be in tracing the relations of In., Ex. or Con., with which it is now the Pupil's object to become familiar.

Dough...Dodo*...Lay...Outlay...Money...Rogue...Watcher...
 Lair...Chase...Lasso...Mule...Rod...Gnash...Happy...Home...
 Dome...Egg...Hennery...Mope...Leash...Chain...Rail...High
 Mass...Noisy...Meek...Nun†...Enough...Muff...Hand...Match

* A short clumsy bird of Mauritius, now extinct.

† Nun sounds like "none" the opposite of "enough."

...Dip... Nile... Eddies... Ray... Dray... Heavy... Numb... Rouse...
 Lull... Chide... Lad... Lag... Run... Leap... Lamb... Jam... Rive...
 Mad... Dash... Hash... Dine... Inn... Talk... May hear... Harp...
 Rhyme... Leaf... Lawn... Rich... Honey bee... Rear... Nag... Mum
 ...The foe!

And, above all, do not construct one or more stories after the mnemonical imitation of children in the nursery, to *contain* the above words!!! Such fanciful combinations promote *mind-wandering*, and they cannot assist the memory to a *permanent* retention.

After repeating this series at least 15 times forward and as many times backward, doing it only once each day, ~~do~~ report to me the *exact time* it takes you to go both ways when pronouncing the *figures* instead of the *words*; but you need not wait till the 15 days are up before sending for Synthesis. Send for the next lesson as soon as you have *mastered* this lesson. By daily practice you will soon be able to recite the figures of the Knight's Tour in the exact order, both forward and backward, in one minute and a half. Report to me when you have actually done so.

Recall the *words* to memory, but do not say *them* aloud; say aloud the *figures* that translate the *consonants* of the words.

When you can recite the figures of the Tour *rapidly* by *thinking through* the words, you will soon be able to find the words for any figures whatsoever.

~~For~~ In response to a very general demand from my Pupils, I have just completed and printed for sale a Figure Dictionary of 28 pages, giving a variety of words that translate all the figures from 0 up to 1000. This will be a very great help to those who have to deal with numbers. I supply a copy for 50 cents, provided the order contains a *stamped directed* envelope.

If a word to express any date of four figures, or any number of four or more figures, does not readily occur to a Pupil, he can easily make one out of two or three words selected from this "Figure Dictionary." For instance, if "dandyish" was not thought of or not approved for 1216, two words might be used, giving 12 and 16, as "tow ditch," or "wooden dish;" or three, giving 1, 2 and 16, as "the new attaché," or three, giving 1, 21 and 6, as "do not chew." If millions are to be expressed, of course only the number of millions need be signified; for instance, as we are 93 millions of miles from the sun, "poem," "opium," or "beam" might be used to express that distance. If a Pupil wished to give more exactly the distance as estimated during the transit of Venus in 1882, 92,700,000, he might write "he open cases seizes." For 93,321,000, the distance computed from the transit of 1874, "buy my mint sauces," would do. Ambitious Students some-

times select a word for each figure from 1 up to 1000 and learn the Series by Correlations (see Synthesis, or next lesson), and then they can instantly convert any figures whatever into words. This is a great aid in doing Memory Feats.

THE PRESIDENTIAL AND HEPTARCHY SERIES.


The time has now *come* when the Pupil can translate the Date-words, such as 'Fine Oak,' &c., and 'To give up,' &c., into figures, as he *recites* those series forwards and backwards. Let him not fail to recite both ways, at least once each day, those series, always saying the figures that translate the Date-words, and also to join with them the Dough, Dodo Series, but in this last case only thinking the words and saying the figures. Let him keep up this practice for one month, and he will find a remarkable change for the better to have taken place in his Memory and Concentration.


In the Presidential Series the words in CAPITALS are the names of the American Presidents, and those in *italics* translate the dates of the beginning and end of their terms of office. To *give up* means 1789, the date of the appointment of the first President of the United States, Washington. *Took a bouquet* (1797) is the date of the close of his Presidency, and the commencement of John Adams'.

Notice that FINE OAK (827) denotes the close of the Heptarchy and also the beginning of the reign of EGBERT, whose name follows that Date-word; and that the date FOAMING (837), which terminates Egbert's reign, is also the commencement of the reign of Ethelwolf, which follows that Date-word, &c. Thus, each king's name or homophone (see page 32), is between the Date-words which indicate when he began to reign and when his reign terminated; and thus those two Date-words are directly connected with the king whose reign they open and close. And as it happens in all these cases that the *end* of one reign coincides with the *beginning* of the next reign, we see that each Date-word serves the double purpose of marking the commencement of that king's reign which it precedes, and also the termination of his predecessor's reign; or, in other words, each date-word indicates the *finish* of the king's reign whose name precedes it and the *beginning* of the reign of that king which follows it; so that, if the Pupil has thoroughly memorised the Heptarchy Series, he can *instantly* give the date of the accession of each king by thinking of the date that precedes it, and he can as quickly give the date of the termination of that reign by thinking of the date which follows it. He can also give the entire Series of Kings, and their dates, both forwards and backwards, with great rapidity and certainty; and he can do all this without using any artificial Mnemonical "Key" "Pegs," or "Table." Similar remarks would apply to the Date-words in the Presidential Series of Last Lesson.


Notice that Ethelred II. (who came to the throne in 979 and later retired), was restored in 1014, in Canute's absence. In 1016, when Ethelred died, Edmund Ironside (his son) and Canute divided the Kingdom, and on the death of Edmund, Canute became sole king, "Ward" is used for Edward I., "Warn" for Edward II., and "Warm" for Ed-

ward III., to distinguish them from the Edwards after the Conquest, "Edit," &c.

 The Pupil should master this Lesson, no matter what his aim may be. It will be equally valuable to the Student of Languages and to those who will be occupied with Applied Mathematics. Besides, it is indispensable for the understanding of the subsequent Lessons. Let no Student, therefore, fail to become a thorough proficient in the principles and rules of this lesson.

 I do not, as a rule, use words *beginning* with S, except to translate *decimals* and *fractions*, and Date-words where a *doubt* might otherwise arise (unless in a phrase like "To see Jiji," "delay a spy," &c.); and in case of the decimals, S, as the initial letter, means only the decimal point. (1) If there is an integer followed by a decimal, two separate words are used; the decimal-word begins with S, thus: 945·51=barley sold: 71·3412=good Samaritan. (2) If it is a decimal by itself, the S indicates the decimal point only—·01=society; ·02=Susan; ·04=saucer. (3) If it is a fraction, the words translating numerator and denominator begin with S, and the S's are not counted, the numerator-word coming first, and the denominator-word last, thus: $\frac{1}{2}$ =soil Satan. (4) As to Date-words, just before the commencement of the Christian Era you may use an initial S, as, Stir would mean 14 B.C.; and of course Tower would mean 14 A.D.; Soar=4 B.C., and Rue=4 A.D. In a Date-word like Trial, to express 145 B.C., no doubt could arise; if the Pupil knows the contemporary history, he could not imagine it could be 290 later, or 145 A.D. If he fears he might not remember that it was B.C., he could remove all doubt by using the word Stroll.

IMPORTANT EXERCISE!!!—Turn the following sentences into figures and send the translation to me:—Sign your name to all the papers you send to me. Also state the name of Organiser of your Class; and, whether a Private Pupil or Member of a Class, do not forget to enclose the *stamped directed* envelope.

 As this Lesson is a very valuable one, I append **QUESTIONS** thereon which may enable the Student to **TEST** his mastery of it before sending for Synthesis. If he have plenty of leisure he may send me Answers to all these Questions:—

1. How is my System learned?
2. What ancient nation used letters to indicate numbers?

3. Who converted numbers into specific consonants—in other words, constructed a Figure Alphabet? And when?

4. What is effected by means of a Figure Alphabet? And what *advantage* is there in turning figures into words?

5. How is it that, in translating figures into words, we are introducing no “artificial” element? What are we really doing?

6. What letters stand for nought—0? How does the capital S remind you of nought—0? What letter has the same sound as S? And what other reason is there why it, as well as S, should stand for nought—0? What letter is a cognate of S? And what other reason is there why it, as well as S, should stand for nought—0?

7. Why does “t” represent 1? And what is its cognate letter?

8. What letters represent 2 and 3 respectively? And why?

9. Why does “r” represent 4?

10. What letter represents 5? And why?

11. How do you connect “f” with 8, and “b” with 9? And what are the cognate letters of “f” and “b” respectively?

12. What two sentences give the letters for 6 and 7 respectively?

13. Mention a Hebrew word, whose consonants indicate four words?

14. What words contain and connect together respectively, “t” and “d” (=1)? And “f” and “v” (=8)?

15. In what sentence do the consonants of the Figure Alphabet occur? And what phrase gives the consonants for 2, 3, 4 and 5?

16. When will the utility of the Figure Alphabet, and of practice in it, appear?

17. How do you translate double consonants having *only one sound*—as “ll,” or “nn”? Give examples. Would the “cc” in “accident” be an example?

18. How are *silent* consonants treated? Give examples.

19. What value have *equivalents* of the Figure-Consonants? Give examples

20. What figures do the words “bank” and “engage” represent?

21. What figures does the letter “x” usually stand for? Does it ever stand for nought—0?

22. In what words would “c” soft, and “t” not have their usual value?

23. What figures do “dg,” “tch” stand for respectively?

24. Mention a word in which “ch”=k; what value would it have then? Also, words in which “s” and “z”=zh; what value would they have then?

25. How are vowels and diphthongs and the letters “w” and “y” and “h” treated? What value have words like “weigh,” “whey,” “high,” &c.

QUESTIONS ON THE EXERCISES.

1. What are you to do with the 71 sentences?

2. What other Exercises of converting words into figures are set?

3. What are you to do with the List of Words expressing the Dates of the Accession of the Kings of England? With that giving the lengths of some Rivers and heights of Mountains?

4. What is the nature of the problem of the “Knight’s Tour”? And of what use is the Diagram in giving the solution?

5. How is the solution given? How is the List of Numbers, giving the moves in order, made easy to remember? How are the words, chosen to represent the numbers in order, connected with each other?

6. Which consonants of each word are the *figure-consonants*?

7. How many times is it desirable to repeat the List of Words?

8. What are you to do with all the papers you send to me? Whose name, besides your own, are you to state? What are you to enclose with your exercises?

9. Why do I bid the Pupil master the rules and principles of this Lesson? To whom will it be equally valuable? And for what will it be indispensable?

TURNING FIGURES INTO WORDS.

When the pupil is able to run through the Dough, Dodo series in figures in a minute and a half, let him try how quickly he can recall the word for any of the numbers from one to sixty-four, which comprise the squares on the chess-board. So that if he is attempting to do the Knight's Tour blind-fold, and is told that square number 84 has been selected as the starting point, he can instantly recall "May hear," and be prepared to go either to 49 (Harp), or to 17 (Talk).

If he wants practice in other numbers, let him try his hand on such numbers or figures as he sees on the streets and store fronts, turning them into words. If he sees a house numbered 441, let him think how many words besides "reared," "rarity," "reward," and "arrowroot," he can find.

The pupil may at first write down the equivalents of the figures in order to find words; but as soon as possible the habit should be acquired of *thinking through the figures*. Besides the variety of consonants which may be employed, as "g," "k," "c," "q," and "ng," all of which equal 7; let the pupil not forget that he has at his disposal "h," "w," and "y," which *have no figure value*, and that vowels may be put in any position. The various sounds of the vowels must be borne in mind also: "a" having four sounds; as in "fat;" "father;" "fall;" and "fate;" "E" has two sounds, as in "bet," and "beet;" "I" has two sounds, as in "bit," and "bite;" "O" has three sounds, as in "rot," "rote," "foot" and "food;" "U" has two sounds, as in "rut" and "rude;" and then the diphthongs, oy, ow, and ew, come into play constantly. With all this material it is easy to find words for any figures whatever. If you want a number of words to choose from, all equalling 7, put it down in this form; or better still, think it out.

NO VALUE.		7	NO VALUE.	
	a	g (hard)	a	
wh	e	k	e	w
w	i	c (hard)	i	h
h	o	qu	o	y
y	u	ng	u	

Look over this little table and see how many words you can find be-

sides whack, wag, wig, wake, week, wick, woke, wing, hag, hog, hug, hack, hang, hung, yoke, ago, aché, echo, lago, oak, go, key, caw, cow, cue and quay.

If a word was wanted for "91," by proceeding in the same manner, you will find :

NO VALUE.		9	NO VALUE.		1	NO VALUE.	
wh	a		a			a	
w	e	b	e		t	e	w
h	i	p	i		th	i	h
y	o		o		d	o	y
	u		u			u	

The simple forms : bat, bet, bit, beat, and but, at once occur ; but see how many more you can find, such as "whipped" and "habitué."

The pupil must be particularly careful about *equivalents* of consonant sounds. For instance ; there are six or seven sounds of "ough" in English, as in the words, though, tough, cough, hiccough, plough, through, lough ; in some of these it is equal to "8," as in tough ; in others to "9," as in hiccough. Be very careful of the "sh" sound, and its cognate zh, both equal to six. It occurs in such words as : usual, (65 :) tissue, (16 :) noxious, (2760 :) ingratiate, (27461 :) luscious, (560 :) pugnacious, (97260 :) and Prussia, (946).

If the pupil will practise this method in the every day affairs of life, he will find it will greatly simplify the problem of remembering numbers of any description. The human mind feels the want of some concrete mode of expressing the abstract figures, and evidences of this desire may be often noticed ; as when a man tells you he lives at 125 Broadway—"You can remember the number," he says, "if you think of a dollar and a quarter, (125)." Another tells you to meet him at 5 o'clock—which he tells you you can remember by the fact that you have five fingers on your hand. These are mere accidental coincidences, and besides, none of them connect the number to be remembered to the thing, or person, or event, to which it belongs ; how much better to have a method of instantly finding a word for *any* number and *cementing* it to the name permanently. In the next lesson, on Synthesis, how the connection is made, is fully explained.

FIFTH EXERCISE.

☞ If any of my Pupils can read the following, and find nothing applicable to his case, he is fortunate indeed. In fact, I often receive letters from Pupils admitting that until they had read my remarks on "Mind-Wandering," they had never suspected what had always prevented their mastering any study, however simple ; in fact, Mind-wandering is the only obstacle which ever prevents my Pupils from ac-

quiring the full power of my System, and by its aid, mastering languages, sciences, histories, &c. And, although I do not promise or undertake to cure Mind-wandering in my Memory Course, yet, I do point out the Method of its cure in these Lessons; and not only Mind-wanderers, but all those who think they are not troubled with this infirmity, will find their natural power of Continuity greatly strengthened by carrying out my suggestions. Let us first understand what Discontinuity is. As there are two stages of Memory, so there are two elements or functions in Continuity.

As I point out in my Prospectus, "the act of Attention is twofold. It has to pursue an *ever-changing route*, as it passes from word to word, and from thought to thought. It must seize a meaning or thought for an instant, and then drive it out of Consciousness, or rather into Sub-Consciousness, *in order to take up another*. There is the Directing Force of the Attention,* and the equally necessary Inhibitory Force of it. This is obvious, as Consciousness *can be occupied with but one thing at a time*. Hence we see that Mind-wandering, or the inability to keep the attention in any continuous channel, arises from one of two causes. (1) However eager and vehement the Pupil's *desire* may be to follow a train of ideas as set forth on the printed page, for instance, he will fail to sustain and keep his attention there if its Directing Force is weak, because in that case his attention soon becomes *exhausted*, and then fancy takes the reins and soars away from the page, even whilst the eye continues to follow the words and the lips to pronounce them!!!"

Although this result seems almost mysterious to most Pupils, a little reflection will make clear how it happens. The visual impression made by the words, and the articulatory response in pronouncing them aloud, are nothing more than an intellectual *reflex*. Hence but a *minimum* of consciousness is occupied in reading the words; therefore the mind is practically free to roam hither and thither, unless the Directing Power of the Attention is strong enough to occupy consciousness with the train of ideas. From this illustration, the Pupil ought to infer that *printed matter* is not suitable to *train* a weak directing power of attention and make it strong. Let us look at this subject in another way. A weak directing power of attention, which in the view I am about to present, might be considered the same as Will Power, is the cause of the Pupil's inability to *resume* work, intellectual or physical, that he has temporarily laid aside. The novelty of it is gone; and, however keen his sense of duty to renew it, however much he may be interested in returning to it and completing it, he shrinks from it, and sets his wits to work to invent *excuses* for neglecting it!! Such persons are ingenious and resourceful in giving reasons for postponing the discharge of manifest duties. If such a one takes up this Lesson on the Figure Alphabet, he finds it requires attention, practice, and a little time to become familiar with it. The weak directing power of his Attention breaks down. He cannot compel himself to *continue* at the study, and soon he throws aside the lesson, as helpless, he thinks, to proceed with it as a man who is blind and deaf. But this paralysis of his Voluntary powers was not natural to him. He began life, I admit, with this infirmity, or he ac-

* The Directing function of the Attention is divisible into automatic (as listening to a thunder clap, we cannot help doing so), and Volitional (purposed attention); we deal mainly with the latter.

quired it in early youth, but he has *increased* it a thousandfold. He has indulged the *habit*, whenever he is called upon to closely *attend* to anything, of neglecting it, relying upon his inventiveness for excuses for his neglect. But he little thought that every such neglect *weakened* his power of Attention, that every time he indulged himself in the luxury of *inattention* he had less power to compel his Attention afterwards. Such persons are almost sure to, sooner or later, indulge the habit of *vacuity*, that is, they indulge in reverie or mere absence of thought, a most ruinous habit. On the other hand, if he had struggled against this infirmity from the start, he could have mastered it. Every time a weak Attention triumphs, it is stronger. It gives strength by the effort put forth to win. If such persons will accept my advice, they will never allow themselves to *postpone* the performance of *any* duty. They can safely act on the adage, that, what is postponed is wilfully neglected. If too tired at night to study, they will insist on being called an hour earlier than usual, and then when awakened, they will get up at once and pursue their studies in the early morning, the best possible time for study. And instead of sending me excuses for not doing any of the exercises, they will do them all, making the exhaustive study of my System the occasion of *training* and *building up* the Directing Power of their Attention. In this way, they create an irresistible Continuity, and at the same time become great adepts in Memory.

But even when the Directing Force of the Attention is strong, there is always a *struggle* going on between it and other powers of the mind that are constantly appealed to by the links of the chain of thought that is being pursued; and unless the INHIBITORY POWER of the Attention is sufficient to suppress these contestants, the Attention wanders hither and thither, anywhere, in fact, except to the subject before the reader. Such persons are little more than *automatons*. They are the victims of every passing whim or impression. They think they have no power to *resist* temptation. If the lesson looks difficult, they sometimes imagine that they are *utterly powerless* to continue at it. The least discouragement paralyses all their ambition.

Let me illustrate.—A mistress and servant are in an upper room of the house, the mistress sends the servant downstairs to the kitchen for a hammer; when the servant arrives in the kitchen she cannot tell what she came there for!! And this ignorance of the object of her visit there is put down to a bad memory; possibly so, but more probably it was due to lack of one or other of the functions of the Attention! When the mistress told her to go downstairs, that part of her command was listened to, but at once the servant begins to think, "I'll have a glass of beer when I get there." This train of thought is carried on while the mistress is directing her to fetch the hammer; and so of course the servant receives no *first impression* in regard to the hammer; and no wonder she cannot recall, when in the kitchen, her object in going there.

Let us suppose, however, that the Directing Power of her Attention enabled her to understand the order; she starts downstairs; streams of impressions are rapidly flowing into her brain through her ears and eyes. Each impression sets in motion a train of reminiscences, the last is jostled out of mind by the next. The sight of a picture calls up the thought of her brother. At the head of the stairs she is reminded of having had a long chat there with a discarded lover. At the bottom of

the stairs she hears the bark of a dog, and this makes her think of the cry of a pack of hounds, or she may have tripped downstairs without any thought, advancing as a wound-up automaton goes, and reaching the kitchen in a mental state vacant and hollow as a drum. When she reaches the kitchen she is in a very different emotional mood from that in which she left the top of the house; and, possessing a weak reviving power of Memory, she cannot recall the object of her going there unless she happens to *see* the hammer. Her thirst being still clamorous, it surely reminds her of the beer! Now, if the Directing Power of her Attention had been strong, she would not have entirely lost out of her consciousness the thought of the hammer, however many things had occurred to her on her way to the kitchen. And if its Inhibitory Power had been strong too, those intruders into her brain could not have driven out of her consciousness the recollection of the hammer. It is from a weak Directing Power of the Attention that a speaker sometimes introduces an anecdote or citation into his discourse and then never applies it or turns it into account!

A servant at Staleybridge was notorious for forgetting errands. On one occasion, having been sent to the grocery to get *treacle, sugar, and tea*, and having been advised to *repeat* those words as a mnemonical aid to his memory, he trotted along humming over in a sing-song way "treacle, sugar, tea, treacle, sugar, tea," until, stepping into some tar that had been spilled in front of a tallow chandler's shop he fell down. Getting up, he proceeded on his journey in a very sorry style, singing "Pitch, tar, tallow, pitch, tar, tallow," and arriving at the grocery, he procured some pitch, tar, and tallow, and took them to his master as the things he had been ordered to fetch. "This man was a fool!" exclaims the reader. Not so, certainly. He was a victim of Discontinuity in both its functions. He was weak in both, and the difference between him and others is, that they are bad and he was worse. He had indulged the habit of *reverie* or *vacuity* so much that he could not *give* attention to anything, and therefore could not get a vivid first impression, nor keep his attention on anything by any ordinary device. With him the sing-song soon became the *main thing*, and his slip into the tar started the new jingle of "Pitch, tar, tallow," and his Memory was so wretchedly bad that it could not correct his blunder.

Wise persons can outwit or circumvent their well-known habits of inattention by *precautions*. To prevent neglecting things on the day of starting on a journey, they can pack up their goods a day or two beforehand. They can put articles they wish to take with them into their hats, &c. These are very good temporary expedients; but the wiser course is to systematically train and develop both functions of the Attention.

Before showing how these functions of the Attention may be strengthened, let me correct a prevalent error about absent-mindedness. This is most frequently owing to a weak Attention, but it may be due to a strong one. The case of a weak Attention leading to absent-mindedness was illustrated in the cases of the above servants. The case of a Powerful Attention in its Directing and Inhibitory functions leading to absent-mindedness was illustrated in the case of Hogarth, the illustrious painter, who after paying a visit to the Lord Mayor in his new carriage, returned home on foot through a drenching rain, although his carriage was still there waiting for him. He became so much interested in

some topic of conversation with the Lord Mayor, and his Directory Power held it so continuously before him and his Inhibitory Power so completely shut out all intruding impressions, that he rushed on through the storm utterly oblivious of his carriage or of the state of the weather.

☞ The Attention is strengthened, not by trying to use the Attention in reading the printed page (where, as I pointed out above, there is a strong temptation for the attention to wander), but by *reciting* at least twice every day, for one or several months, exercises in Analysis, the constituents of which are connected by the relations of In., Ex. and Con. In reciting both forwards and backwards such a series of 100, or, better still, 500, words thus related, the Directing Power is constantly occupied in *advancing* through the series, and the Inhibitory power is likewise kept in incessant exercise, because the Attention cannot *dwell* on any word nor *run off* on a mental excursion; but the moment one word is thought of or uttered, it is at once thrown out of the Consciousness to give place to the next of the series. The worst possible cases—even the Staleybridge servant's—are always *cured* by this system of training. I admit those who are weak in either or both functions of the Attention hate to *continue* such a disciplinary course regularly from day to day, yet those who have the necessary ambition and persistence always achieve the grand results of acquiring in a short time a Perfect Attention.

QUESTIONS.

1.—When the reciter of a witty anecdote comes to the point of the joke, and he feels an inclination to laugh, but *he does not*, which function of the attention does he mainly exercise in order to maintain a grave countenance?

2.—When Mucias, according to the Roman tradition, held his right hand in the flames on the altar till the flesh was burned from the bones, which function of the attention did he exercise? If you think only one, say why. If you think he must have exerted both, explain why.

3.—Mrs. Disraeli's devotion and strength of mind. One day when setting off to drive to the House of Commons, two of her fingers were crushed by the door of the carriage, but in spite of intense pain, she concealed it from her husband as he sat by her side, in order that he might not be disturbed in an important speech which he had to make. She kept up, so it is said, till the moment when he alighted, and then fell fainting on the cushions. What function did she call into requisition in concealing her pain? Through the failure of which function did she faint away? Or how do you explain her fainting away?

PROBLEMS OF MEMORY.

4.—A witness named Sarah Money, having been called several times by the court crier, the Judge at length remarked, "As it is now tea-time, we must adjourn the court without *ceremony*" [Sarah Money]. Nearly everybody laughed at the judicial pun. One man only kept a grave countenance, but, after some moments, he laughed outright, as if he had just perceived the point of the joke. On reaching home, he said to his wife, "Our Judge perpetrated a brilliant pun just before adjournment. There was a witness named Mary Money, who had been called at the door a number of times, but who failed to respond. When the Judge adjourned the Court for tea, he remarked, 'As it is now tea-time, we must adjourn the court without Mary Money.' We all laughed

at the wit of the Judge." But his wife replied, "I don't see any fun in that remark." "Ah," said the husband, "you soon will, I didn't see it at first, but it came to me at last, and it will occur to you, if you keep thinking of it." Did the husband receive a *vivid First Impression*, or was his failure to reproduce the pun owing to a failure of the *Revising* power of his memory?

5.—Dr. Carpenter [Mental Physiology, p. 522] cites from a graduate of the University of London, as follows:—"One day I was summoned to a town at some distance to see a friend lying dangerously ill at a physician's house. While in the railway train, I found I could not remember either the name of the physician or his address. I vainly endeavored to recall them: I became much excited, but bethought me that if I consulted a Post Office Directory I should see and recognise the name. I consulted the Directory on reaching the hotel, but the name seemed not to be there. Soon after, while I was ordering some refreshment, the name flashed on my consciousness. I left the astounded waiter, rushed to the Directory, and there saw the name; and what is more, *I am sure that I had noticed it on my first inspection, without recognising it as the name I sought.*" *Remarks.*—(1) Emotional excitement always tends to defeat revivals. (2) When examining the Directory, his eye followed the words, whilst his mind was doubtless *wandering away* to London or elsewhere, and hence he did not *recognise* the name when he saw it. (3) Having despaired of recalling the name, and made up his mind to return to London by the next train, his excitement subsided, and in his talk with the waiter some word was uttered that, by mere Inclusion by Sound, or some previous powerful association of Concurrence, helped to recall the wished-for name.

Let the Pupil send any other examples with his comments, that I may see if he clearly understands the difference between the two Functions of the Attention, and the two Stages of the Memory.


SIXTH EXERCISE.

INTERROGATIVE ANALYSIS.

A celebrated French writer gave a prescription for writing love letters, as follows:—"Begin without knowing what you are going to say, and end without knowing what you have said." Equally vague and indefinite is the state of mind of the Pupil who learns by heart by endless repetitions. He begins by the attempt to memorise a succession of sights and sounds, and he usually ends with nothing more. Whereas the true way to learn by heart is to **ABSORB AND ASSIMILATE** the thoughts, and, if this is thoroughly well done, the thoughts will carry the succession of sights and sounds along with them, that is, the exact expression.

The Analytic Method of dealing with sentences by taking them to pieces and reconstructing them, as given in last Lesson, is useful. But it is in every way inferior, even in the matter of securing the comprehension of propositions, to the Method I am now to present. This latter Method secures not only the understanding but also the retentive memorisation of sentences of any description.

My method of *exhaustive* Interrogative Analysis is easy to all, and it never fails in any case. The process is very simple. Propose a question on every SEPARATE thought expressed in the sentence, and then as a reply to *each* question, repeat the entire sentence from memory, or the main clause where it occurs, and especially EMPHASISE that word in it which constitutes the reply to the question, as exemplified below. In this way you study the THOUGHTS indicated in the sentence in a twofold manner, first in *framing* the question and then in *emphasising* the answer; and you so thoroughly master these thoughts, that they necessitate carrying the dress or clothing of them. With a careful study of the examples I give, the youngest Pupil can soon rapidly use this Method, and at length only a few questions will have to be proposed in order to learn prose and poetry *verbatim*. But at *first*, when learning say the first hundred sentences, it is necessary to *put* and *answer* all possible questions on each sentence. Observe how the mind is by this Method agreeably occupied, the Attention cannot wander, and the Pupil's pains are rewarded by a retentive recollection of the passage.

I desire that *every* Pupil should learn in this way, on the model below, the entire 71 sentences, pages 64 and 65 of this lesson. My object is threefold. 1. As these 71 sentences are wholly unconnected and often of very irregular construction, if the Pupil learns them by heart in this way so that he can rapidly recite them without mistake, he will have so thoroughly mastered my Method that hereafter he can learn any passage of prose or poetry in one careful interrogative perusal!! 2. The learning of these 71 sentences will not only strengthen his power of Attention, but his Memory also, and make him quick to realise the meaning of all he reads hereafter. 3. By learning these sentences, he will be able to do by means of this knowledge an unequalled feat of memory, as he will see in a later lesson. Not a memory feat for show merely, but every time it is done before others the memory, continuity, and confidence are greatly increased. And if both his MEMORY and CONCEN-TRATION are *now* weak, he may have to repeat the interrogations and answers several times before he perfectly knows these 71 sentences by heart. And let him report to me the time it takes him to recite these 71 sentences without a single mistake. Let him recite them once or twice per day with increasing rapidity for 2 or 3 weeks.  I will only add that it would occupy the strongest unassisted Natural Memory, weeks, if not months [owing to the total lack of connection between the sentences], to learn these 71 Sentences with the same thoroughness with which my Pupils can learn them in a few hours.

Who will buy any shawl?—"Mother Day will buy any shawl." Which mother will buy any shawl?—"Mother Day will buy any shawl." In what character is Mrs. Day here spoken of?—"Mother Day will buy any shawl." What is it Mother Day will do?—"Mother Day will *buy* any shawl." Has Mother Day already bought any shawl?—"Mother Day *will* buy any shawl." Will Mother Day buy a particular shawl?—"Mother Day will buy *any* shawl." What will Mother Day buy?—"Mother Day will buy *any shawl*." What are "shawls" used for?—Warmth. Passing from physical warmth, what name do we give to warmth of affection?—"Love." Whose love is addressed in the sentence?—"My love pick up my new muff." Who is asked to pick up my new muff?—"My *love* pick up my new muff." What do I ask my love to do?—"My love *pick up* my new muff." Whose muff is my love

asked to pick up ?—"My love pick up *my* new muff." What kind of muff is it ?—"My love pick up my *new* muff." What do I ask my love to pick up ?—"My love pick up my new *muff*." What are "muffs" generally made of ?—Fur. What is one special kind of fur ?—"Russian." What kind of jeer may move a woman ?—"A *Russian* jeer may move a woman." What may move a woman ?—"A Russian *jeer* may move a woman." Is it certain that a Russian jeer will move a woman ?—"A Russian jeer *may* move a woman." How may a Russian jeer affect a woman ?—"A Russian jeer may *move* a woman." What is a Russian jeer likely to move ?—"A Russian jeer may move a *woman*." What is a young "woman" often called ?—Lass. With what word does "lass" form an Inclusion by Sound ?—"Lasso." What is a "lasso ?"—"A rope with a noose used for catching wild horses." What are very strong ropes called ?—"Cables." Of what are there enough for Utopia ?—"Cables enough for Utopia." Is there any lack of cables ?—"Cables *enough* for Utopia." What relation do the cables sustain to Utopia ?—"Cables enough *for* Utopia." For what are the cables ?—"Cables enough for *Utopia*." What sort of an island was that of Utopia ?—"Imaginary." Where do we have some vivid imaginations ?—"In bed." What do we think of if in bed late in the morning ?—"Getting up." What is the first syllable of "getting ?"—"Get." What is my request in regard to a pie ?—"Get a cheap ham pie by my cooley." What do I ask to be got ?—"Get a cheap ham *pie* by my cooley." Do I wish to pay much for the pie ?—"Get a *cheap* ham pie by my cooley." Of what particular meat do I want this pie ?—"Get a cheap *ham* pie by my cooley." Do I want this pie got *through* any person ?—"Get a cheap ham pie *by* my cooley." By whose cooley do I want the pie bought ?—"Get a cheap ham pie *by my* cooley." By whom do I want the pie got ?—"Get a cheap ham pie by my *cooley*." What is a cooley ?—"A dark skinned labourer in India." What is a dark skinned labourer in America ?—"A Negro." What was the American Negro in 1860 ?—"A slave." Which "slave" knows a bigger ape ?—"The slave knows a bigger ape." Who knows a bigger ape ?—"The *slave* knows a bigger ape." Is the slave acquainted with a bigger ape ?—"The slave *knows* a bigger ape." What kind of ape is it the slave knows ?—"The slave knows a *bigger* ape." What does the slave know ?—"The slave knows a bigger *ape*." For what are apes remarkable ?—Tricks. What is another name with tricks ?—Freaks. What is an inclusion by sound with freaks ?—Frequently. What is an exclusion of frequently ?—"Rarely." What is it I rarely do ?—"I rarely *hop* on my sick foot." Who rarely hops on a sick foot ?—"I rarely hop on my sick foot." Do I often hop on my sick foot ?—"I *rarely* hop on my sick foot." Upon what do I rarely hop ?—"I rarely hop on my sick *foot*." What foot do I rarely hop on ?—"I rarely hop on my *sick* foot." Whose sick foot is rarely hopped on ?—"I rarely hop on *my* sick foot." When are sick feet a great inconvenience ?—At a ball. What is the characteristic of the mood in which dancers generally appear ?—Cheerful. How are we to treat a "sage" ?—"Cheer a sage in a fashion safe." Whom are we to cheer ?—"Cheer a *sage* in a fashion safe." In what manner are we to cheer a sage ?—"Cheer a sage in a *fashion* safe." In what kind of fashion are we to cheer him ?—"Cheer a sage in a fashion *safe*."

In a similar manner let the Pupil interrogatively analyse and memorise the rest of the 71 sentences.

As these 71 sentences are wholly unconnected, an analysis must be developed between the suggestive word at the end of one sentence and the suggestive word at the beginning of the following sentence. The theory is that the answers constitute the intermediate links between the first and second suggestive words. This method is virtually followed, but sometimes one or more of the analytic words appear in the questions. I will give no more interrogations on the sentences themselves. The Pupil can easily work them out and memorise them. I only furnish a model for the remaining unconnected parts. The ambitious Student, if he has time, should write out complete and exhaustive interrogations in his own language, not only for all the sentences themselves, but also for the connections between them, and send them to me for criticism.

What is a concurrence with "safe"?—Sound [safe and sound]. What is a disagreeable night sound?—Crying. Who cries?—"A baby." For what is a "wharf" used?—Unloading goods. How often is stock taken of goods?—"Annually." What is a jay?—"A bird." What do the wings of a bird enable it to do?—"To fly." What can sometimes be used instead of a double-seated carriage called a "Fly"?—"A cab." What is a vulgar name for a cabman?—"Cabby." Amid what do "savages" live?—Wild beasts. Are wild animals high or low in the scale of creation?—"Low." When is a speaker not considered "showy"?—When he argues. What word contains in the same order the first four letters of *argues*?—"Argus." What kind of sound generally accompanies "rushing"?—A whizzing or buzzing. To what insect is buzzing almost peculiar?—"A bee." What is an In. by S. with "enmity"?—Enemy. What used to be an excavation made to keep off an enemy?—A trench. What does a trench filled with water resemble?—"A canal." What is an Exclusion of "swift"?—Slow. What are slow people generally known to be?—Late. When is it better to be late than?—"Never." When a boy is "early" to school, has he any fear of censure?—"No." Where are "ghosts" found?—In old halls. What supports a hall's ceiling?—"Beams." If "Lulu" was *dizzy*, what else was she likely to be?—Unsteady. What is a concurrence with steady?—"Sure" [sure and steady]. What is a new "Pier" likely to be?—Strong. What is the opposite of *strong*?—"Feeble." What is a "well-fed" man likely to eat?—Meat. Who provides the raw meat?—A "butcher." What do "soppy" feet lead to?—Colds. Who prescribe for their cure?—Doctors. At what place are they educated?—"College." What is seen in the mental "mirror"?—An idea. What is the young idea taught to do?—"Shoot." If a "sheriff" is not naturalised, what must he be?—A native. In what other word do we find an In. by S. with the first syllable of native?—"Naomi." What do you say of the depth of a *tea-spoon*?—It is shallow. What is an In. by S. with shallow?—"Shall." What is "topaz"?—A precious stone. Which of the Apostles' names means a stone or rock?—"Peter." What rises up a few feet from the soil?—A "Hedge." What rises high up above the adjacent valleys?—"Ridges." Since a "fish" swims in water, what is the opposite of what it can do?—"Soar." What is the verdict of a "jury" sometimes called?—A finding. What is the root of finding?—"Find." What is an In. by S. with *Chiswick*?—Wicked. When are they unsafe?—"Now." Do we think of "Eden" as past or future?—Past. What word applied to future events expresses the op-

posite of past?—"Coming." What is an old word for "kiss"?—Buss. By what animals are public "busses" drawn?—Horses. What word directs a horse to the off side?—"Jee." With what is that an In. by S.?—"Jiji" (pronounced as if spelled Jeejee). What does "leaf off" sound like?—Leave off. What does that mean?—"Let alone." What is the opposite of let alone?—"Take." How may savoury "lamb soup" be described?—As delicious. What is a diminishing In. by meaning with delicious?—"Nice." What is "panel"?—Compartment with margins. If these margins are above adjacent parts, how do you speak of them?—They are raised. What is the root of raised?—"Raise." What is an In. by S. with major?—Magi. What were they supposed to be skilled in?—"Magic." What is an In. by S. with "Opossum"?—Posture. Who has an awkward posture?—A clown. What is he?—A joker. With what does jokes form an In. by S.?—"Jones." What is usually taken as the opposite of a "hymn"?—Song. Who usually sings a marine song?—"A sailor." How do we often express our "joys"?—By singing. What besides tune has a singer to heed?—Time. Who are vainest of authorship?—Youths, when they first see themselves in print. What is a conceited youth often found to be?—"A pert lad." Can we usually "teach" animals?—Yes. Which one is hard to be taught?—A "bear." Is a "gun case" deep or shallow?—"Shallow." What is "pulp"?—The soft and fleshy part of bodies. In what animal is the flesh soft and tender?—A "lamb." What is "dew"?—Condensed moisture. What word implies having been "condensed"?—"Compact." What is an In. by S. with compact?—"Come." When do people troll out their "ditties"?—When they have had too much intoxicating drink. What is a common drinking vessel?—A "cup." If a rich person is asked to live in a "hovel" what would he do?—"Refuse." What is "muck"?—Moistened dirt. Who often has a dirty face?—"A baby." How may we speak of a pale "cheek"?—It is white as snow. What eventually becomes of snow?—It "melts." What is "lining"?—Inside covering. What is an outside covering?—"Roof." What is the first syllable of "Cobham"?—Cob. If a lady sees her lover thrown from a cob, what will her heart do?—"Heave." What is the size of a baby's robe?—"Tiny." Where do we see a "mummy"?—At a museum. What is the character of the things seen at museums?—Curiosities. What old curiosities have some people a mania for?—"China." What is a share?—A part. When lovers part in anger, what is apt soon to be sent?—"A missive." By what is a cricket "ball" covered?—Pieces of leather. By what are they sewn together?—"Stitches." With what word does "ruffs" make an In. by S.?—Ruffles. Where are old ruffles sometimes sold?—At auction. What is a characteristic word of auctioneers?—"Going." Can you name a weaving machine?—"Loom." What does a sensitive man do when put in "chains"?—"Quail." Is "pie-crust" light or heavy?—Light. What is the opposite of "light"?—"Heavy." Whom do you "rock" in the cradle? Babies. Can you give the name of a "baby" dog?—"Puppy." What class of people require "care" to be taken of them?—Wine-inebriates. Can you name the god of wine?—"Bacchus." What do we often associate the word "match" with?—Marriage. Is the bride bold or shy?—"Shy." When does the moralist advise us to act uprightly?—"To-day." What kind of arguments do some people require to make them do this?—"Suasive." What does "fame"

mean?—Enviably notoriety. What French servants enjoy the greatest notoriety?—Cooks. With what word does cook form an In. by S.?—“Cuckoos.” When is a person “touchy”?—When he is overwhelmed with a great loss. What is the greatest loss?—Death of a parent. What do we say of a parent laid in the grave?—“Buried.” How many fingers are there on each hand?—“Five.” What name is given to the fourth finger?—The ring finger. Of what is the ring a pledge?—Of “Love.” What was a Doge?—A Venetian chief magistrate. Whom does a magistrate often try?—Pick-pockets. What is an In. by S. with pick-pockets?—“Pick.” Which of Jacob’s wives was Rachel?—His chosen one. If we wish to be chosen for some special object, what should we say?—“Pick us.” What is a perfect In. by S. with pick us?—“Picus.” Does he “accuse us”?—“No.” What is another spelling for the sound of “him”?—Hymn. Who usually sing in church in the absence of a choir? The people. What is an old name for people?—“Folk.” What does a person wish to do who regards his “home” as a prison?—“Escape.” What does “May” remind you of?—May-queen. Who was queen of beauty?—Venus. What city was sacred to Venus?—“Paphos.”

☞ If the Pupil were to attempt to learn these 71 UNCONNECTED sentences by ordinary endless repetition, and if every repetition were written out and printed, a book of several hundred pages would be filled; whereas, by my method of Assimilation, the 71 sentences are permanently learned in one hundredth part of the time required to learn them by rote.

☞ The Pupil must never mention to anyone in what the Interrogative Analysis consists, nor how he has learned or can learn by means of it either prose or poetry.

My Memory-teaching includes two distinct unique and original Systems.

The first is the one I have been teaching many years. It makes no use of the Intellect or of the Imagination, but it appeals to the Memory to aid the Memory. Yet, indirectly and incidentally, the Intellect is invigorated, owing to the prodigious increase of concentration and the new activity of thought on the lines of Natural Association. This method uses Analysis and Synthesis to develop and build up the fundamental Associative Power, by awakening to its highest intensity the direct and immediate appreciation of In., Ex. and Con., and in this most effective way it operates as a true Memory-TRAINER, permanently strengthening both Stages of the Natural Memory and both Functions of the Continuity, so that when the Pupil has finished all the exercises in the manner prescribed, he will remember hereafter without any conscious thought or application of my System, except in the very rare cases of dealing with exceptionally complicated or technical matters. And although I use Analysis and Synthesis in thousands of practical applications, yet this Device for memorising particular things operates as a Memory-TRAINER also. Memory-TRAINING first, last, and all the time is my object and main object in this first method.

My second System, which I call Interrogative Analysis, reaches the same goal by a different route. It works from above downwards. It trains the mind to quick and instantaneous grasp of new ideas and groups of ideas. It counteracts the distracting effects of our hasty harum-scarum habits of reading, thinking and acting. It develops the prim-

ordial Associative Power, and thereby tends to secure on all occasions vivid FIRST IMPRESSIONS. Let the pupil notice that by the first Method he learns the EXACT LANGUAGE and indirectly the ideas, and that by the second Method he learns the PRECISE IDEAS and THOUGHTS and indirectly the language which clothes them. Let the Pupil master both Systems.

☞ NOTICE.—Whenever *two unrelated* ideas have become so cemented together in the Pupil's mind that the thought of one of them immediately recalls the other, I can prove that in every such case the union took place *originally* in strict though *unconscious* conformity to the Method taught in this Lesson. In the natural way, however, such a connexion invariably costs the Pupil from 500 or more direct or *indirect* repetitions!!! By my Science, hundreds of such connexions that never fail can be *voluntarily* established in the same time that nature ordinarily takes to effect one of them!!!

PART III.

RECOLLECTIVE SYNTHESIS.

PRINTED SOLELY FOR THE PUPILS OF
PROFESSOR A. LOISETTE.

A.—*Analysis* is applied to words or ideas between which such a relation exists, as a master of Recollective Analysis can discover. Synthesis applies where *no relation exists*. Before giving my method of uniting unconnected ideas or words (hereafter to be called “Extremes”), so that one will recall the other, I shall give the Mnemonical modes of dealing with such cases. The following are Pairs of unconnected Words or “Extremes”: “Anchor, Bolster,” ... “Arrow, Treadmill,” ... “Bee, Attorney,” ... “Lash, Vicarious,” ... “Slain, Moon,” ... “Tea, Lover,” and “Pen, Nose.”

Those who do not care for the history of Memory Methods, may omit the reading of the matter from here to paragraph B. But I advise all Pupils to read and *study* all the paragraphs.

There are ONLY three * Mnemonical methods of effecting a synthesis in such cases:—

I.—The “carpentry” method of *physically* uniting them in a mental picture! or, in other words, trying to *imagine* that you *see* them in *physical contact*. This method evokes only the infantile fancy, but no element of the constructive imagination; and, like the two other methods and the use of Mnemonical Keys, it promotes Mind-Wandering to a most disastrous extent. And the revival afterwards of this fancied juxtaposition makes an *eye* or *sight phantom*. This is the method first taught by Simonides, 550 B.C., prominently introduced into England by Gregory Von Feinaigle about 1810, and continued by Major Beniowski some years later; it is now practised by all Professors of Mnemonics. I copy from their *published works* the following Illustrations:—

1. “You must imagine that you see a BOLSTER tied around an ANCHOR”!!
2. “You must imagine that you see a poor wretch at the TREADMILL pierced by an ARROW”!!
3. “You must imagine that you see an ATTORNEY pleading whilst a BEE settles on his head”!!
4. “You must imagine that you see the word VICARIOUS engraven on the whipstock that carries the LASH”!!
5. “You must imagine that you see an ox SLAIN by the light of the MOON”!!

* Up to date there have been produced 400 Mnemonical Systems!! all bearing different names!! 200 before this century, and 200 since; yet ALL WITHOUT EXCEPTION are related to one or other of the three described in the text!!

6. "You must imagine that you see a Lady and her LOVER drinking TEA together"!!
7. "You must imagine that you see a man with a PEN thrust through his NOSE"!!

Remarks.—(1) I grant that were you to *see* a "Bolster" tied around an "Anchor," it would make an impression on the sense of sight; but merely to *imagine* that you see it is a totally different thing! Such a *mental* picture is the most fleeting and evanescent of impressions—not a hundredth part so vivid as *dream*-pictures, almost invariably forgotten in a few hours. (2) A memory that can *retain* such nursery-conjunctions must be phenomenally strong for mere *physical* contacts, and correspondingly weak for the *natural union of ideas*. Yet mnemonists are always applying to these physical contacts, as well as to the two other methods, the inappropriate terms "links of thought," and "association of ideas"!! (3) An intellect which can make and rely on such incongruous juxtapositions must be as distorted and out-of-joint as is the conscience of the Hindoo mother who throws her child into the Ganges. (4) If anything was ever *permanently* retained by these carpentry-devices, it was only after never-ceasing reviews, many times more taxing than the poorest natural memory would find it to be to learn it without assistance.

II.—The second Mnemonical method—conspicuously brought before the public by Aimé Paris in 1819–20, and published in 1845 in England and America by his pupil Francis Fauvel Gouraud—a method copied by some Mnemonical teachers when they *print* their lessons!—adds to the inutility of mental pictures—more truly called "mental daubs"—the rhetorical difficulty of constructing a sentence that shall contain the two unconnected words. It is an *invention* of the imagination!! the revival of it may be called an *imagination-phantom*. This way of handling the foregoing examples is as follows:—

1. "The ANCHOR, being made to steady a ship in a storm, is necessarily constructed of iron, which is a much heavier material than the slight stuff composing a BOLSTER."
2. "An ARROW dipped in poison is not more fatal in its effects than is the social influence of one who has atoned for his crimes on a TREADMILL."
3. "The BEE by its sting causes no more pain than is often inflicted by the severity of a sarcastic ATTORNEY."
4. "The LASH applied to the back of the whipping-boy who voluntarily endured the flogging a Prince had merited, caused the former to suffer in a VICARIOUS capacity."
5. "It is absurd to suppose that people are SLAIN in a satellite, probably uninhabited, like the MOON."
6. "TEA, from its sedative qualities, is well calculated to soothe the excited nerves of a LOVER who has been rejected."
7. "When a PEN is made from a quill, it comes from an animal whose NOSE is at the end of its bill."

Remarks.—(1) No one can make such sentences so as to contain a pair of unconnected ideas UNLESS HE POSSESSES AN ALMOST MARVELLOUS CONSTRUCTIVE POWER OF IMAGINATION. (2) These rare gifts would be utterly unavailing, unless he possesses also an absolutely perfect *verbal* memory; FOR THESE PHRASES ARE OF NO USE UNLESS THEY ARE PERFECTLY MEMORISED. Such a *perfect* verbal memory could retain these Extremes by mere "concurrence," or thinking of them together two or three times; and the mnemonical phrases thus become a useless and fatiguing burden to him—a Van which he must shoulder in order to carry his purse. But a poor memory can make no use of these phrases; FOR NOTHING ELSE IS SO DIFFICULT TO IT AS PROSE; and thus the *means* offered under pretence of *aiding* it are impracticable or impossible to be used.

III. The third and only remaining mnemonical method, really only a variety of the Aimé Paris Method, was invented by a Dane, named Carl Otto Reventlow, previous to 1850, and was taught orally since 1863 for a few years in England by one of his pupils. Reventlow boasted that he substituted "Reasoning for Memory." Users of this method tried to invent some common ground of comparison or contrast between unconnected "Extremes," a practical contradiction in terms.* Aimé Paris resorted to *any* sentence that his constructive imagination could invent to contain the two "Extremes;" but Reventlow, being more restricted in his range, often produced mental freaks, more irrational and far-fetched than even the mental daubs!! As this method invariably led to a perversion of the intellect, its products might be called *Subtlety-phantoms*. Applied to the foregoing examples, they would appear as follows:—


1. The ANCHOR, being made of iron, is of metallic origin; the BOLSTER, being made of feathers, is of animal origin.
2. An ARROW describes an arc in its course; a TREADMILL makes a circle every time it turns round.
3. A BEE makes a flight through the air; an ATTORNEY sometimes indulges in flights of rhetoric.
4. VICARIOUS suffering is endured by one for another; a LASH is applied by one upon another.
5. Men are sometimes SLAIN by night; the MOON shines by night.
6. A LOVER uses the lips in kissing; TEA is sipped by the lips.
7. The fingers act as a holder of the NOSE in presence of a bad odour; a steel PEN is used by means of a holder.

Remarks.—(1) What was said of the Aimé Paris Method applies also to this method, with the additional remark that it is much more difficult in application and equally useless. (2) It may be said that RECOLLECTIVE ANALYSIS CAN NEITHER APPLY TO THE "MENTAL DAUBS" NOR TO THE "MNEMONICAL PHRASES," nor to the "SUBSTITUTED REASONINGS;" for Analysis applies only where there is a *direct* and *immediate* relation of In., Ex. or Con. between the two words, with no intermediate or interjected idea interposing between them; but Synthesis applies where there is *no* single direct or immediate relation between the two words or "extremes," but in the very nature of the ideas themselves they are wholly unconnected; for if, in any case of pretended Synthesis, there was a relation of Inclusion, Exclusion, or Concurrence, it would prove it to be a case of Analysis and not of Synthesis.

B.—We had experience in learning the Presidential Series that the application of the laws of In., Ex. and Con. enabled us to commit to memory that series in ONE-FIFTIETH OF THE TIME it would have taken had we not known those Laws. Most people could *never* have committed to memory such a long series by mere *rote* or *repetition*, and not one in a thousand could have learned to say that series backwards by *rote* alone!! Yet all my Pupils easily learn that series both ways, because Analysis affords the highest possible AID to the Natural Memory. In fact, the *deepest* and *most abiding* impression that can be made upon the Natural Memory is by impressing it with the *relations* of In., Ex. or Con.; because these are the Memory-Senses (if the phrase be allowed), these are the eyes, ears, touch, taste and smell of the Memory; and we have only to impress the *Memory* according to the laws of its own nature and the MEMORY will RETAIN the impression. And this is

*As a disciple of Hegel, he claimed he could unify the most unconnected and unrelated ideas!!! But this unification he tried to effect by adding on foreign ideas to both "Extremes," as the Mental Daubers and Phrase Makers had done before him, and thereby, like them, imposing new burdens on the Memory; besides, this method made a draft on the "Ingenuity," to which not one in ten thousand could respond.

exactly what my Art does ; for I translate every case of Synthesis into an Analytic series by supplying *Memory-intermediates* that grow out of the "Extremes," each one of which is an instance of In., Ex. or Con. — Thus, every example of Synthesis becomes a *developed or extended Analysis!!!* To make this translation from Synthesis into Analysis requires no intellectual ingenuity—no constructive power of imagination—but only to *recall to consciousness* what we already *know* about the "Extremes" through In., Ex. and Con. I call these Intermediates the Correlation, because they sustain the *direct, immediate and specific* relation of In., Ex. and Con. to the "Extremes," having nothing in common either in principle or nature with the above Mnemonical "Links" or "Associations," "Phrases" or "Substituted reasonings,"

 In. will be represented by 1, Ex. by 2. and Con. by 3.

C.—I herewith present my Method of dealing with the above pairs of extremes :—

1. ANCHOR	(1) Sheet Anchor	(1) Sheet	(1) Bed	(1) BOLSTER
Or, —	(3) Capstan	(1) Night-cap	(3) Pillow	(3) —
Or, —	(3) Roadstead	(1) Bedstead		—
Or, —	(3) Sea Bed			(1) —
2. ARROW	(3) Tell	(3) Apple	(3) Cider Mill	(1) TREADMILL
Or, —	(3) Flight	(3) Arrest	(3) Convict	(3) —
Or, —	(1) Air	(1) Wind	(1) Windmill	(1) —
3. BEE	(1) Beeswax	(1) Sealing-wax	(3) Title deeds	(3) ATTORNEY
Or, —	(1) Queen bee	(1) Queen's Counsel	(3) —	(3) —
4. LASH	(1) Eye-lash	(1) Glass Eye	(1) Substitute	(1) VICARIOUS
Or, —	(3) Driver	(3) Car	(1) Vicar	(1) —
5. PEN	(3) Ink	(1) Ink-bottle	(1) Smelling-bottle	(3) NOSE
Or, —	(3) Quill	(1) Feather	(1) Eagle	(1) Aquiline
Or, —	(1) Pensive	(2) Gay	(1) Nosegay	(1) —
Or, —		(3) Wiper		(3) —
6. SLAIN		(3) Battle	(3) Joshua	(3) MOON
Or, —	(1) Struck-down	(1) Moon-struck		(1) —
Or, —	(3) Fallen	(2) Risen		(3) —
7. TEA	(1) Teaspoon	(1) Spooney		(1) LOVER
Or, —	(3) Sugar	(1) Sweet	(1) Sweetheart	(1) —
Or, —	(1) Tease	(1) Sir Peter Teazle	(1) Old Lover	(1) —
Or, —	(1) Oolong	(1) Woolong	(3) —	(3) —

1. Neither Children nor Adults, who have thoroughly learned Recollective Analysis and practised its exercises, ever find the slightest difficulty in making Correlations, unless they are so afflicted with Mind-Wandering that they have never *digested* the impressions or knowledge they have received, or unless their intellectual operations have been twisted or wrenched out of the natural order by the perversities of early education ; but even in all these cases the *diligent* student will be able—usually before the Five Lessons are finished—at once to correlate any word whatever to any or all the words in any dictionary. A learned Professor declared that no person unacquainted with astronomy could correlate "Moon" to "Omnibus." He did it thus: MOON—(3) Gibbous [one of the phases of the Moon]—(1) "Bus"—(1) OMNIBUS. I asked a pupil then present—a girl 9 years old—to connect them. She instantly replied, "MOON—(1) Honeymoon—(3) Kissing—(1) Buss—(1) OMNIBUS." A moment after, she gave another: "MOON—(1) Full Moon—(1) 'Full inside'—(3) OMNIBUS." Once more: "MOON—(1) Moonlight—(1) Lightning—(3) 'Conductor'—(3) OMNIBUS." Another Pupil imagined it would be *impossible* to Correlate the following *letters* of the alphabet to *words* beginning with the same letters, as

"A" to "Anchor," "B" to "Bull," "C" to "Cab" and "D" to "Doge"—as well as "Cooley" to "The." There are, however, no words, whether *abstract* or *concrete*, no real or imaginary things that can be named, which my Pupils cannot soon learn to Correlate together with the greatest readiness, as:—

"A"	(1) First Letter (1) First Mate (3) Ship	(3) "ANCHOR"
"B"	(1) Aviary (3) Bird (1) Flyer (3) Flew (1) Fluke	(1) —
"C"	(1) April (1) Rill (1) Water (1) Water-wheel (3) Revolution (3) Capetan	(3) —
"B"	(1) Bee (3) Sting (1) Sharp Pain (1) Sharp Horns	(1) "BULL"
"C"	(1) Below (1) Bellow	(3) —
"C"	(1) Sea (3) Ocean Steamer (1) Cabin	(1) "CAB"
"D"	(1) "D.D." (1) Clerical Title (1) Venetian Title	(1) "DOGE"
"COOLEY"	(1) Coolly articulated (1) Definite Article	(1) "THE"

All possible cases to be memorised can be reduced to (1) ISOLATED FACTS, where each fact is correlated to some fact in its surroundings through which you must think as the *Best Known*, in order to recall it—many instances of dealings with Isolated Facts will be given in this lesson;—or, (2) SERIAL FACTS, where each fact must be remembered in the *exact order* in which it was presented to our minds—as is illustrated by many examples in this and subsequent Lessons.

Let the Pupil NEVER FORGET that my System serves two distinct purposes: (1) That it is a Device for memorising any Isolated Fact or Serial Facts by means of memorised Correlations. (2) And that by memorising and repeating for a considerable period Analytic Series, and especially by *making* and *memorising* one's own Correlations, it is an unequalled system of Memory-TRAINING. Let the ambitious Pupil *learn every example I give him in the lessons in order to soon so strengthen his natural memory that he will no longer have to use the device for memorising, his natural memory permanently retaining all he desires to remember.* But this grand result comes only to those who carry out ALL my directions with genuine alacrity—not shirking one of them—but rather doing all I require, and as many more new examples as he can think of to which he can apply my Method, and sending me for criticism all his work.

By memorising the Correlations the Pupils will find that hereafter the two EXTREMES are united in memory without his ever having to *recall the Correlations!!* and to memorise a Correlation, he must at first, if his Natural Memory be weak, repeat from *memory* the intermediates forwards and backwards, thus:—ANCHOR...sheet anchor...sheet...bed...BOLSTER—BOLSTER...bed...sheet...sheet anchor...ANCHOR, at least three times each way. These six repetitions from memory, three forward and three back, are only required *at first*. In a short time the Pupil will infallibly remember every Correlation he makes, merely from having made it, and, at last, his Memory will become so strong, that he will no longer have to make any Correlations at all. And when he has repeated the Correlation, let him repeat the two extremes, thus—"Anchor"... "Bolster"—"Bolster"... "Anchor"—"Bolster"... "Anchor"—"Anchor"... "Bolster." Nothing else is so easy to memorise as a Correlation, for a Correlation is not a "mental picture" or "story"—it is neither a proposition, sentence, or phrase. It has no rhetorical, grammatical or *imaginative* character, nor is it a substituted reasoning. It is simply an elemental primordial Physiological Sequence of Ideas in which one includes another, excludes another,

or in which one idea has been so united with another in past experience that the two are henceforth inseparably connected in memory—and a little practice in making and *memorising* these Correlations soon makes it *impossible* to forget them.

In ordinary experience, no two * unconnected facts are ever permanently united in memory except at a cost of 500 or more direct or *indirect* experiences which were required to make an *unconscious* Correlation; yet any pair of unconnected ideas can readily be cemented together for ever by a conscious or spontaneous Correlation repeated backwards and forwards only a few times!! A Pupil once criticised these remarks by saying that he had never repeated the ideas of "Diogenes" and "Tub" more than 10 or 20 times, and yet he should remember them together as long as he lived. But he really had had the benefit of *indirectly* dealing with those ideas thousands of times!! For what was his mental experience in regard to the place where human beings live? Why, it was that they live in houses—or human habitations. These ideas had been so many thousands of times repeated in his consciousness, that henceforth the mention of one would recall the other almost as by reflex action. After this inseparable bond had been established between these ideas, he reads that Diogenes lived in a Tub!! What a shock this gave to the powerfully associated ideas that human beings lived in human habitations or houses!! The relation between Diogenes and Tub had become unconsciously correlated through a most vivid intermediate of Exclusion—probably thus: **DIOGENES...**(2) non-human habitation... (1) **TUB**. The reader will instantly see that there would have been scarcely any impression made on my Pupil's mind, if his uniform experience had been that human beings had always lived in Tubs!!!! Then, and in that case, he would have remembered that the particular man Diogenes lived in a Tub, only after very many repetitions, and not before his mind had unconsciously made a Correlation between those words or ideas—very likely, thus: **DIOGENES...Dye...Dye-Tub...TUB**. It is an undoubted fact that no pair of unconnected ideas has ever become *connected* in anyone's memory until that person had made and cemented an unconscious Correlation between them. And the difference between a *quick* and a *slow* natural memory consists in the fact that the former makes an unconscious Correlation more rapidly than the latter. And the great power of my System of Memory-TRAINING is seen in the fact that whilst Pupils having quick Natural Memories can add enormous vigor to their Natural Memories by *analysing* and *memorising* their own spontaneous Correlations, yet those with the slowest Natural Memories can by the same process of making and memorising their own Correlations soon so strengthen their hitherto sluggish Natural Memories as to excel in *quickness of acquisition* and *permanence of retention* the best unassisted Natural Memories!!! And the reflecting Pupil will not fail to observe that my Method of cementing together unconnected facts is only a Scientific Development of Nature's own

* The most vivid CONCURRENCE exists where two or more objects strike or affect the senses at one and the same moment, and sometimes a single experience is sufficient to effect a permanent relation between them. When you merely *think of* two unconnected objects without having had any *sensuous* experience in regard to them, a Correlation must unconsciously or consciously unite them before they will be hereafter connected, though one or more intermediates of the Correlation may have been derived from a *sensuous* concurrence.

Method, just as the Microscope and the Telescope are merely Scientific Developments of the Eyesight.

Rules for making Correlations.

(1) Let the number of Intermediates be usually not less than two, nor more than four. It is a waste of labour to try to connect unconnected extremes by only one intermediate. It is only accident that enables me to connect pen and nose by the single intermediate "wiper." Accident may even enable me to find a date-word that is vividly connected with the man or event, as, Death of Charles I., *Too Sharp*, [1649]; again, Harvard College founded, *Teach much* [1636]. Necessarily, the "extremes" are in different spheres or planes of thought, and occasionally three or four intermediates are necessary to cement them together, but two usually suffice.

(2) A Correlation is a *necessitate advance*, and an intermediate must never refer back to any except its *immediate* antecedent, never to its second or third antecedent. A Pupil sends this:—*Wavy hair... Harry... stepson... real son... more a son... MORRISON*. Here, "more a son" refers to the comparison between "real son" and "stepson," but the latter is the second antecedent, and the correlation is therefore a defective one.

(3) A word may be used twice, but never three times; as, *Pen... pen-sive... gay... nose-gay... NOSE*. Here "gay" is properly used twice, and after that, it is dropped and you can go on with the rest of the word, to wit, *nose*.

(4) A compound phrase including a verb must never be used, since the intermediates must be the simplest elements, either sensations or perceptions [relations among sensations], or abstractions [relations among relations], or one of these with either of the others, and always exemplify either *In.*, *Ex.* or *Con.*

(5) My Correlations are good for me, but they may not be so vivid to others, especially the concurrences. To fix the date of Magna Charta (1215), the Pupil could memorise this Correlation—*MAGNA CHARTA... King John... Jew's teeth... DENTAL*. But if the Pupil did not already know that King John granted that charter, and if he did not also know the story about the extraction of the Jew's teeth, to make him pay the royal exaction, there would be no concurrences in regard to the first two intermediates, and he would have to learn the Correlation by mere repetition without aid from Analysis. In such a case, he would make and memorise his own Correlation, perhaps thus: *MAGNA CHARTA... magnify... diminish... DWINDLE... (1215)*. Again; *SIR CHRISTOPHER WREN... St. Paul's... cathedral bells... To CHIME ON (born 1632)... sweet bells... tolling... burial... TAKEN HOME (died 1733)*. If the fact that Sir Christopher Wren was the architect of St. Paul's were unknown to the Pupil, there would be no concurrence in his mind between Sir Christopher Wren and St. Paul's, and he would then probably proceed thus: *SIR CHRISTOPHER WREN... bird... mocking bird... mock... ridicule... To SHAME ONE (1632)... shame-faced... assumed an "alias"... TOOK A NAME (1723)*. "Carcasses... The mad jaw" is a vivid concurrence to me, as I have seen a pack of starving wolves act like fiends in devouring and tearing to pieces the carcasses of dead animals. To a person unacquainted with such scenes, or who had never read about them, or to whom the impressiveness of such scenes might not occur, there would be no concurrence—in other words, "Carcasses... The mad jaw" would be a case for Synthesis, and the Pupil must make a Correlation between them and memorise it, or else he must learn it by *ordinary repetition*!! But if he makes his own Correlations, every concurrence he uses would be a *real* concurrence to him, and so with his *Ins.* and *Exs.* This is a decisive, unanswerable reason why the Pupil should merely look upon my Correlations as models, but make and memorise his own Correlations in all cases, as being more vivid to him, and therefore more certainly remembered, as well as more effectively training and strengthening the Memory in both its stages.

(6) Let him observe that vivid *Ins.* by *meaning* are usually better than *Ins.* by *S.*, unless the latter are perfect. "Troop—loop," is a fairly good *In.* by *S.*, but not perfect. Instead of saying, "*Hidden enemy... hostile troop... LOOP*," it would be better to say, "*Hidden enemy... ambush... snare... noose... LOOP*." *EAR... EEL* makes a weak *In.* by *S.*, although the sound of long *e* begins each word, but it would make a much more vivid first impression to deal with them in this way: *EAR... earring... wring... twist... wriggle... EEL*. But "*Bivouac... aqueduct*" is a perfect *In.* by *S.* as to the last syllable of the former and the first syllable of the latter, since those syllables, although spelled differently, are pronounced exactly alike. Hence, to connect Bivouac to Rain, we might well say, "*Bivouac... aqueduct... flowing water... falling water... RAIN*."

(7) ~~Let~~ Let him *never*—under any circumstances—make a *second* Correlation until he has memorised the first.

(8) Above all, let the Pupil bear in mind that although *making* and *memorising* Correlations serves the useful purpose of fixing specific facts permanently in the memory, yet

that the main object in making and memorising Correlations is to develop the latent power of the Natural Memory to such a degree that all facts are hereafter remembered without using Correlations.

(1.)—ISOLATED FACTS.

Correlate the *Isolated Fact* to some fact in its environment or *entourage* that is BEST KNOWN and which you are sure to THINK OF when you wish to recall the Isolated Fact.

1. To remember PROPER NAMES, correlate the Person's Name to the name of some peculiarity of the Person as the BEST KNOWN, and which you are sure to THINK of whenever you think of the Person. If you *memorise* the Correlation, you will instantly recall the Name whenever you think of this Peculiarity.

To remember a proper name, Mnemonics simply resorts to In. by S. But this gives no starting point, no "Best Known," which you must certainly think of, and which will enable you to recall the name, *provided* you cement by a memorised Correlation the "Best Known" to the name itself; in fact, a similarity of sound *alone* and *by itself* is almost certain to mislead you into reviving itself instead of the name!! A celebrated Member of Parliament who, in the days of his youthful simplicity and before he had tested Mnemonics, gave a high opinion of its value, was to deliver an address at the Birkbeck Institution, about 8 years ago. Resolving to pay a tribute of appreciation to its founder, Mr. Birkbeck, and always having found great difficulty in remembering proper names, he thought he would *fix* the name of Birkbeck in his memory by the mnemonical device of finding a word that resembled it in sound; and so he said to himself, "it reminds me of 'Pinchbeck.'" He commenced as follows: "Before coming to the subject on which I am to speak this evening, I desire first of all to pay a deserved tribute of praise to the founder of this great Institution, the celebrated Mr. PINCHBECK!!!" A universal shout of laughter revealed to this disciple of Mnemonics that this boasted Art can get us into trouble, but that it cannot help us out: for he could not recall the real name, Birkbeck, until it was told to him. If he had mastered my System, his new memory-power would have enabled him to remember the true name without any device; or, if he had not received the benefits of my System as a Memory-Trainer, he could have infallibly remembered the name Birkbeck—which he was afraid he would forget, and which he did forget—by correlating it to the word "Founder," which he would certainly remember, and which he did remember, thus:—FOUNDER... found... lost... calling... beckon... BIRKBECK; or, FOUNDER... foundation... underground... grave... body-snatchers... Hare & Burke ... BIRKBECK.

If he had memorised either of these Correlations by repeating them forwards and backwards two or three times, and then recalled the two extremes "Founder," "Birkbeck," several times, the moment he thought of Founder, he would instantly have recalled Birkbeck; for, when the Correlations are memorised, the two extremes are cemented together, without recalling the intermediates at all. But if he had thoroughly learned all my exercises, he would have received the benefit of my System as a Memory-TRAINER, and then the mere *making* of a Correlation is the *infallible* remembering the two extremes together, without ever thinking of the intermediates.

[Dr. Johnson, when introduced to a stranger, repeated his name several times aloud, and sometimes *spelled* it. This produced a vivid First Impression of the man's name, but it did not connect the name to the man who bore it!! People who have adopted the Johnsonian Method say that they remember the name but often apply it to the wrong person!! because they did not establish any relation between the name and the man himself to whom it belonged !!]

<i>Peculiarity.</i>	<i>Correlation.</i>	<i>Proper Name.</i>
Cross-eyed	...cross-bow...	Mr. Bowman.
Unequal eyes	...unlike size...	Mr. Sizer.
Straight brows	...browsing... sheep...	Mr. Shepherd.
Snub nose	...short...shrub...shrubbery...	Mr. Berryman.
Regular features	...straight... upright... walls...	Mr. Waller.
Wavy hair	...dancing wave... Morris dance...	Mr. Morrison.
Black eyes	...white...snow...pure as snow...	Mr. Virtue.
Red cheek	...cheeky...chastise...bruise...	Mr. Brewis.
Bare face	...dancing bear...tumbling...crooked fall...	Mr. Crookall.
Small-pox	...plague...cattle plague...sheep...lamb...	Mr. Lambert.
Retreating chin	...retiring...homebird...	Mr. Holmes.
High instep	...boots...mud...peat...	Mr. Pete.
White hands	...gloves...covered...shut-up...warder...	Mr. Ward.
Crooked legs	...broken legs...crushed...	Mr. Crushton.
One arm	...coat of arms...doorway...hall...	Mr. Hall.
Apprehension	...suspension...gallows...	Mr. Galloway.
Mathematics	...mat...door-mat...	Mr. Dorman.
Energetic	...work...labourer...spade...dug...	Mr. Douglas.
Conceited	...lofty...upper room...chamber...	Mr. Chambers.
Sombre	...sad...mourning...hat-band...	Mr. Hatton.
Modes	...violet...flower...shrub...laurel...	Laura.
Music	...stave...bar...	Mr. Barcroft.
Violinist	...violin...flute...whistle...	Mr. Birtwistle.
Organist	...pedal...foot...horse-shoe...blacksmith...	Mr. Smith.
Cricketer	...field...park...stag...hart...	Mr. Hartley.
Painter	...paint...coloured cards...whist...	Mr. Hoyle.
Publican	...beer...barrel...	Mr. Barrett.
Clothier	...cloth...cloth coat...overcoat...	Mr. Overstall.
Plumber	...plum...currant...cake...victuals...	Mr. Whittles.
Joiner	...wood...ash...	Mr. Ashworth.
Baker	...flour...white flour...	Mr. Whiteley.
Engineer	...engine driver...smutty...black coat...	Mr. Coates.
Gardener	...guard...secure...hold...	Mr. Holden.
Printer	...type...picking up...pick...dig...	Mr. Delve.

Make your own Correlations in each of these examples and send them to me for criticism, and give other illustrations of your own in regard to your acquaintances, completely worked out as above.

A CONTRAST.—When unconnected ideas are to be united in the memory so that hereafter one will recall the other, the teachers of all other Memory Systems invariably say, "What can I *invent* to tie them together—what story can I contrive—what foreign matter can I introduce—what mental daub can I imagine, no matter how unnatural or false the juxtaposition may be—or what argument or comparison can I originate—no matter how far-fetched and fanciful it may be, to help hold these 'Extremes' together?" They do not reflect that all these mnemonical outside and imported schemes must *also* be

remembered, and that being in the form of sentences expressing loose relations of mere physical juxtapositions or the complex relations invented by the constructive imagination or the subtlest intellect, they are more difficult to be recollected than the Extremes would be alone and without these ponderous aids!! Hence, in their professed attempt to aid the memory, they really impose a *new and additional burden* upon the memory. On the other hand, I simply ask the memory what it *already knows* about the "Extremes." The first intermediate of a correlation is *directly* connected through In., Ex., or Con., with the first "Extreme," and the last intermediate with the last "Extreme," and the intervening intermediates with the other two, and thus the *intermediates being already in the memory*, and not the result of invention or ingenuity, my Method of Correlation is purely and solely a *MEMORY* process. Thus I alone use the *MEMORY TO HELP THE MEMORY*!! I use the *reviving* power of the memory to make a vivid *FIRST IMPRESSION* between two hitherto unconnected "Extremes." I add nothing to the "Extremes." I import nothing from abroad in regard to them. I invent nothing. I simply *arouse, reawaken* to consciousness *what is already stored away* in the memory in regard to those "Extremes," and, by reciting the Correlation a few times forwards and backwards, I cement the "Extremes" themselves so vividly together, that henceforth one "Extreme" revives the other "Extreme" without the recall of the intermediates!!! Nor is this all—in learning prose or poetry by heart by means of endless repetitions, the mind soon wanders, and thus discontinuity is promoted; but, in reciting a Correlation forwards and backwards from memory, the mind cannot wander, and thus the continuity is strengthened in the highest degree. Again, Memory is improved by exercise, and *improved in the highest degree by making and memorising* correlations, because in making them the *reviving* power of the memory is exercised in conformity to Memory's own Laws; and in *memorising* the Correlations, both stages of memory are most vividly impressed. Thus, making and memorising Correlations TRAINS both Memory and Continuity.

(2.) To remember Unfamiliar English Words or FOREIGN WORDS, correlate the Definition as the BEST KNOWN to the Unfamiliar or Foreign Word, and memorise the Correlation. In the case of Foreign Words the last Intermediate is necessarily a case of Inclusion by sound. The French word *Anachorète* would have for its equivalent by sound either "*Anna goes late*" or "*Ann a core ate*," or "*Anna's cold hate*," and perhaps to some of my readers it would sound like something else. *Cravache* might sound like "Have hash" or "*Crack of lush*." Pupils often disagree as to what is good Inclusion by sound, but the rule for each is to use what suits himself, and not to trouble about other people's ears. *In. by sound or by sense or by spelling*, is sufficient if it refers to *one syllable only*.

CORRELATION.

GREEK.

Merchant...	market...emporium...
Pearl...	necklace...sweetheart...Sweet Margery...
Move...	move on...next stage...next-of-kin...
True...	naked truth...pith of the matter...pithy...
Course...	coarse hair...camel-hair...dromedary...
Servant...	light fare...dole out...
Tanner...	leather...leather purse...disburse
Cup...	tea-cup...tea-pot...
Fetters...	criminal...desperate...
Fragile...	thin...rapier..."thrust us"
Fruit...	fruit-knife...fish-knife...carp...
Round...	round cable...strong...
Bear...	suffer...servitude...Israelites...Pharaoh
Bride...	fair...fairy...forest nymph...
Bread...	baker...baker's art...
Marry...	lottery of life...risky game...
Join...	engaged...apt to disagree...
—	engaged...suited...apt...
Culprit...	cull...select a few...few gone...

ἔμπορος
μαργαρίτης
κινέω
πιθανός
δρόμος
δούλος
βυρσεύς
πυθήριον
δεσμός
θραυστός
καρπός
στρογγύλος
φέρω
νύμφη
ἄρτος
γαμέω
ἔπιτω
—
φευγών

CORRELATION.

		GREEK.
Milk...	milky way...galaxy...	γάλα
Drink...	water...small leak...pinhole...	πίνω
Suffer hunger...	dying of hunger...pining away...	πεινάω
Time...	watch...chronometer...	χρόνος
—	Father Time...old age...old orony...	—
Cover...	covert...cave...grotto...Calypso...	καλύπτω
Deliver...	capture...lasso...	ἀπαλλάσσω
Spread...	feast...Christmas...deck a church...dye a spire...	διασπείρω
Uncover...	bare...bare foot...a Kaliph's toe...	ἐκκαλύπτω
Assign...	sign...mark...man of mark...hero...intrepid...	ἐπιτρέπω
Shut ..	shut out...severe weather...bad climate...	κλείω
I judge...	condemn...refute...refuse...cry "no"	κρίνω
Found...	establish...fix...fasten thus...tie so ..	κτίζω
Entrust...	trustee...trustee-meeting...dine...stew...	πιστεύω
Soldier...	art of war...strategy...	στρατιώτης

LATIN.

Heart	...heart-sick...fainting...cordial...	cor
Wickedness	...dishonesty...black mail...	malum
Book	...printed thoughts...freedom of thought...liberty...	liber
Breast	...front...front view...aspect...	pectus
Spear	...thrust...quick motion...hasty...	hasta
Suitor	...princely suitor...married by proxy...	procus
Ask	...borrow...swindle...rogue...	rogare
Marrow	...old English arrow...victory...medal...	medulla
Captain	...head of hundred...century...	centurio
Surveyor	...measure...dimension...	agrimensor
Furniture	...bent-wood chairs...bent legs...supple legs...	supellex
Vine	...wine...luxury...pampered...	pampinus
Liar	...false pretence...mendicant...	mendax
Coachman	...carriage... "fine rig out"...	auriga
Cow	...cow pox...vaccination...vaccine...	vacca
Sing	...boatman's song...canoe...	cano
Kill	...kill by hanging...broken neck...	necare
Redden	...blush...kissing...ruby lips...	rubesco
Dry	...dry mouth...feverish...sick...	siccus
Man	...married man...home...	homo
War	...victory...rejoicings...bells rung	bellum
Rob	...robber...hue-and-cry...policeman's rap...	rapto
Tanner	russet leather...russet apple...apple core...	coriarius
Dove	married love...state of union...United States...	
	Columbia...	columba
Bench	...table...shop counter...selling...	subsellium
Oar	...galley-slave...Roman galley...Rome...Romulus and Remus...	remus
Garret	...store-house...grain store...	granaria
Horse	...race...dead-heat...equal...	equus
Cock	...spurring...goadings...galling...	gallus
Lazy	...tramp...knave...	ignavus
Make heavy	...rich food...gravity...	gravo
Sign	...musical signs...notes ..	nota
Poverty	...drafty garret...sleeping draught...opium...	inopia

CORRELATION.

Messenger	...news...false news...nonsense...
Top	...high perch...hen's perch...cackle...
Face	...bare face...bare-headed bird...vulture...
Useless	...needless impatience...irritation...
Dark	...dark staircase...insecure...
Writer	...bad writer...scribbler...
Harvest	...harvest home...Mrs. at home ?...
Dog	...dog's tail...tin can...
"	...cane-carrier...cane...
Egg	...boiled eggs...boiled hard...over-boiled...
Fox	...jackal...carcass...vultures...
Bread	...sweat of brow...labour...pain...
"	...bread-pan...
Table	...figures...calculation...mensuration...
Master	...schoolboard...fines...magistrate...
Tree	...mast...ship...harbour...
Mother	...wife...helpmeet...help-mate...

LATIN.

nuntius
cacumen
vultus
irritus
obscurus
scriba
messis
canis
canis
ovum
vulpes
panis
"
mensa
magister
arbor
mater

GERMAN.

Thankfulness	...gratitude...altitude...high-flying...kite...	Dankbarkeit
Embarrassment	...slough of despond...low spirits...height...	Verlegenheit
Toy	...play day...free day...Friday...	Freude
Sad	...“sad sea waves”...boat...outrigger...	traurig
Clear	...clear tones...clarinet...	klar
Indolent	...“lazy bones”...lazy lass...	lässig
Dangerous	...storm...steamboat fare...	gefährlich
Part	...part of house...roof...tile...	Theil
Empty	...hollow...fox's hole...lair...	leer
Take	...take husband...new name...	nehmen
Diffidence	...shyness...shy...	scheu
Little	...grow less...on the wane...	wenig
Much	...wanting...fill up...	viel
Recompense	...prize...game...lawn tennis...lawn...	Lohn
Question	...answer...fragmentary answer...	Frage
Pressure	...heavy load...truck...	Druck
Voice	...voice lozenges...stimulation...	Stimme
Child	...young kindred...	Kind
Threaten	...stinging words...stinging bee...drone...	drohen
Mirror	...reflection...spy-glass...	Spiegel
Beetroot	...red...ruby...	Rübe
Potato	...dig up...remove...cart off...	Kartoffel
Love	...lovers' meeting...meat...Liebig's Extract...	Liebe
Campaign	...battlefield...Field Marshal...	Feldzug
Medicine	...science...arts	Arznei
Evening	...hour of prayer...bend the knee...	Abend
Apple	...“windfall”...cold wind...wrap well...	Apfel
Heaven	...angels...sing hymns...	Himmel
Song	...choir...choir leader...lead...	Lied
Table	...soiled with use...dirtyish...	Tisch
Chair	...chairman...session...	Sessel
Bottle	...Leyden jar...electric spark...flash...	Flasche
Castle	...siege...battle...lost...loss...	Schloss
Honour	...esteem...steam...vapour...air...	Ehre

CORRELATION.		FRENCH.
Fat	...fat ox...clover...rich grass...	gras
Mouth	...flesh-eater...butcher...	bouche
Asphalt	...asafetida...fish bait...	béton
To lash	...horsewhip...one-horse chaise...single horse...	cingler
Armchair	...reclining...gouty...foot oil...	fauteuil
Railway station	...railway guard...guard...	gare
Smoke	...tobacco...smell...perfumer...	fumer
Carpet	...fine design...tapestry...	tapis
Head	...foot...root...potato...	tête
Oar	...ship...ironclad...ram...	rame
Tears	...hysterics...fainting fit...alarm...	larmes
Canvas	...roap...oakum...hard labour...toil...	toile
Wave	...washing...unwashed...vagabond...	vague
Bed	...bed of sea...sea-shore...lee-shore...	lit
Pane	...pain...sore eyes...vitriol...	vitre
Gun	...gunsmith...spark...fuse...	fusil
Shovel	...shoved about...crowd...Pall Mall...	pelle
Side-walk	...walking fast...trotting along...	trottoir
Dirty	...dirty business...bankruptcy...enforced sale...	sale
Faithful	...dog...blind fiddler...fiddle...	fidèle
Pity	...pitying...misery...	miséricorde
Misfortune	...missing train...mail hour...	malheur
Happiness	...love...courting...bonnie hour...	bonheur
Hang fire	...fire engine..."haste"...tear along to...	faire long feu
Star	...starling...bird...ostrich...head-dress...toilet...	étoile
Cake	...cheesecake...cheese...mouse...cat...	gâteau
Sword	...soldier...soldier's pay...	épée
Book	...pages...leaves	livre
Castle	...ruined...shattered...	château
To speak	...converse...dispute...parley...	parler
		ITALIAN.
Basket	...horse-basket...pannier...	paniera
"	...bag...collection bag...church...corbel...	corbello
"	...bread basket...Æsop..."frog and bull"...bellow.	"
"	..."basket of flowers"...fruit...prunes...prunello..	"
"	...casket...ring...bull...bellow...	"
Hour	...late hour...evening meeting...applause...hurrah.	óra
Gold	...nugget...ore...	óro
His	...his own...zone...bind...sew...	suó
Thy	...thy face...head...foot...toe...	tuó
Uncle	..."Dutch uncle"...Holland...Zuyder Zee...	Zio
Pius	...church...pew...	Pio
Month	...May...mace...	mése
Made	...servant maid...cook...fat...	fátto

Synonyms, as well as words having but a slight difference in sound, like *Insidious* and *Invidious*, are easily discriminated by *memorised* Correlations: INSIDIOUS...inside...hole...fox...TREACHERY.—INVIDIOUS...invade...warlike revenge...ILL-WILL.

(3.) To remember the *Date* of the *Birth* and *Death* of great men, correlate the SURNAME as the BEST KNOWN to the word expressing the

date of BIRTH, and then correlate the BIRTH WORD to the DEATH WORD:—

<i>Napoleon Bonaparte.</i>	
Banishment...embarkation...	Took ship.
born	1 7 6 9
Took ship...ship...masthead...Godhead...	Divinity.
died	1 8 2 1
<i>Robert Burns.</i>	
Scotch Poet...map of Scotland...map of the world...	The globe.
born	1 75 9
The globe...geography...schoolbook...page...	Waiting page.
died	1 7 9 6
<i>Oliver Goldsmith.</i>	
Poverty...plenty...	Took enough.
born	1 7 2 8
Took enough...bread enough...prodigal son...	The younger.
died	1 77 4
<i>Henry Cavendish.</i>	
Tobacco...bird's eye view...telescopic view...	The comet.
born	1 7 3 1
Harbinger of war...decisive battles...	"The fights."
died	1 8 10
<i>The Duke of Albany.</i>	
Delicate...pale...white...	White flame.
born	1 85 8
Heat...cold...fur...	To have fur.
died	1 8 8 4
<i>Wolsey.</i>	
Butcher...steel...straight...	Direct.
born	1 4 71
Wrecked...gored...horns...	Dilemmas.
died	1 5 3 0
<i>Richelieu.</i>	
Abel...death of Abel...	Doleful.
born	1 5 8 5
Burial...urn burial...	Dutch urn.
died	1 6 42
<i>Chatterton.</i>	
Forgery...crime...black gallows...	White galloon.
born	1 7 8 2
Balloon...hollow...kettledrum...	Tea cakes.
died	1 7 7 0
<i>Thomas Carlyle.</i>	
"Sartor Resartus"...sarcastic...ill-tempered...ill...	Took a pill.
born	1 7 9 5
Dinner pill...weak digestion...mastication...	Tough food.
died	1 8 8 1
<i>Charles Darwin.</i>	
"Natural Selection"...the chosen one...	Happy.
born	1809*
Greatest happiness...	To have heaven.
died	1 8 8 2
<i>Col. Burnaby.</i>	
Burning...martyr...first martyr...	Die for any.
born	1 8 4 2
Death...mourning...	Day of evil.
died	1 8 8 5
<i>George Elliot.</i>	
Adam Bede...add...	Advance.
born	18 20
Money...£10...	Two fives.
died	1 8 8 0

* It is sufficient to indicate the figure 9, as we know that it could not have been the year 9 of the Christian Era, and, as it was somewhere about the beginning of this century, the figure 9 makes an indefinite impression definite and exact.

Let the Pupil send me examples of his own selection worked out as above.

To memorise other specific Events or Facts, Correlate the name of the Place or Fact to the Date-word or other Fact, thus:—

Great Earthquake at Lisbon, 1755—	1 7 5 5
LISBON...Listen...Hush!...	TALK LOWLY.
SORATA, the highest peak of the Andes, 21,286 feet high.	2 1 2 8 6
SORATA...sore...cured...salt fish...	UNEATEN FISH.
The specific gravity of Iridium is 22.40	2 2 4 0
IRIDIUM...I ridicule...Ridiculous...All laugh...	NONE SERIOUS.*
HEIGHT OF ARARAT (17,260 feet)—	
Noah's Ark...Ark of the covenant...	1 7 2 6 0
Philistines attack...	ATTACK NO JEWS.
FOUNDATION OF ROME—	7 5 3
Seven hills—uphill...	CLIMB.
FIRST PRINTING IN ENGLAND—	1 4 7 1
Book...pamphlet...	TRACT.
COUNCIL OF TRENT—	1 5 4 5
Trent...rent...rent roll...	DAILY ROLL.
America discovered in 1492—	1 4 9 2
AMERICA...Merry...Sad...Sad irons...Handcuffs...	TURPIN.
North American Review was established 1815—	
NORTH AMERICAN REVIEW...Criticism...	1 8 1 5
Cleverly done...	DEFTLY.
Mariner's Compass was invented, 1269—	1 2 6 9
MARINER'S COMPASS...pocket compass...	TINY SHAPE.
Mesmerism discovered 1788—	1 7 8 8
MESMERISM...mesmerising...imparting a fluid...	TO GIVE OFF.
Prof. Loiset's Telephone Number is 2661—	26 6 1
LOISETTE...Gazette...Gaze...Tête-à-tête...	ENJOY A CHAT.

(2.)—SERIAL FACTS.

These are facts that must be united in the memory in the *exact order* in which they occur. In learning the Dates of the Accession of the Kings of England, it would not answer to place William the Conqueror after Queen Elizabeth, nor Queen Elizabeth before the Conqueror. The Dates of the winnings in the Oxford and Cambridge University Boat Race, as given in the next Lesson, is an instance of Serial Facts. All prose and poetry is also an illustration where you wish to retain, not merely the ideas, but the exact expression. Each word must be remembered in the precise order in which it is set down. I only add that the *first* of a set of Serial Facts is always treated as an ISOLATED FACT, and connected with something THROUGH WHICH the Pupil must necessarily THINK in order to reach that fact—as “President” is united to “Washington.”

A Homophone (In. by S., with the entire name or with only a part of it) of single names can be used for a Correlating word instead of the name itself. Thus, *Wolf* may be used for Ethelwolf, *Stand* for Athel-

* See Supplement to First Lesson concerning the expression of decimals.

stan, *Swain* for Sweyn, *Berth* for Ethelbert, &c., &c. But, where there is more than one King of the same name, we may use a Double Inclusion—that is, the ~~first~~ first one or more letters of the King's name or place, or the first one or more letters of any syllable of his name is used, and then the final consonant is a *t* or a *d*, or *n*, &c., to show that it is the first of that name (as *Herald* for Harold I.) or the second of that name (as *Heron* for Harold II.), &c., &c.; or as, *WarD* for Edward I., *WarN* for Edward II., and *WarM* for Edward III. Here we deal with the last syllable of Edward instead of the first letter *E*. This discriminates the three Edwards before the Conqueror from the six Edwards who come after: for all of the latter are represented by *E* as the first letter of Edward and the last consonant tells which Edward it is; as, *EdiT* for Edward I., *EdeN* for Edward II., *EmporiumM* for Edward III., *EaR* for Edward IV., *EeL* for Edward V., and *EtCH* for Edward VI. The authority for the following dates is "Haydn's Dictionary of Dates." If the Pupil finds that his history gives different dates, he can readily adopt other Date-words and Correlations on the model of those below. If any Pupil wishes to learn science, geography, or speaking without notes, or anything else, let him memorise the following series of Kings with their dates, as hereafter given. No Pupil must learn a correlation he does not understand. He must alter it, or make another. And if he has a poor memory he must not expect to strengthen it, unless in every case he makes his *own* correlation and properly learns it.

The wise Judge [1066]

wisdom

WIT [William I.]

witless

sharper

Deceiving [1087]

"A mocker"

WINE [William II.]

unsteady walk

tiny feet

"*Tootsies*" [1100]

lowest extremity

highest extremity

HEAD [Henry I.]

head of table

meal

Hot oatmeal [1135]

porridge-bowl

round

pointed

STEEPLE [Stephen]

church

ecclesiastic

scholastic

Tutelar [1154]

mother

brood

HEN [Henry II.]

henceforward

looking forward

The day of hope [1189]

despair

despond

pond

REED [Richard I.]

"Bruised reed"

weakling

dying child

Dead baby [1199]

coffin

flowers

JONQUIL [John]

goose-quill

roast goose

dish-cover

Tin dish [1216]

tinsmith

locksmith

hemlock

HEM [Henry III.]

hemorrhage

bloody deed

Duncan's murder

Duncan [1272]

Play of Macbeth

new edition

EDIT [Edward I.]

writing desk

desk covering
Damask [1307]
 rose
 garden
 EDEN [Edward II.]
 serpent
 devilish
Demoniac [1327]
 furious
 martingale
 mart
 EMPORIUM [Edward III.]
 Emperor
 autocrat
 democrat
Demagogue [1377]
 levelling
 RUIN [Richard II.]
 ruined health
 drunkenness
To imbibe [1399]
 liquid
 hair-dye
 HAIR [Henry IV.]
 curling-tongs
 heat
 dried
Dry theme (1413)
 threadbare topics
 May Meetings
 Exeter Hall
 HALL [Henry V.]
 hauled out
drawn in [1422]
 drawing
 portrait
 silent mouth
 HUSH [Henry VI.]
 hush it up
 crime
Tragedy [1461]
 theatre
 listeners
 EAR [Edward IV.]
 ear-trumpet
 trumpet of fame
True Fame [1483]
 false
 slippery
 EEL [Edward V.]
 mud
 soft ground
 terra firma

Teraphim [1483]
 household gods
 house
 ROOM [Richard III.]
 rheumy
 watery eyes
Tearful [1485]
 crying tears
 hue and cry
 hack and hew
 HACK [Henry VII.]
 hacking cough
 impediment
To lisp [1509]
 to hum
 HIVE [Henry VIII.]
 beeswax
 waxed thread
Tailoring [1547]
 sewing needle
 etching needle
 ETCH [Edward VI.]
 sketch
 landscape
 trees
Tall elm [1553]
 Windsor Forest
 Merry Wives of Windsor
 MERRY [Mary]
 single blessedness
Dual life [1558]
 exciting life
 betting man
 BETSY [Elizabeth]
 Betso
 Venetian coin
 Venetian court
Doge's home [1603]
 street of water
 Blackpool
 JET [James I.]
 black-board
 slate
 addition sum
Additional [1625]
 add on
 cut off
 CUT [Charles I.]
 shave
 razor
Too sharp [1649]
 sharp practice
 too common

COMMONWEALTH

rich soil

Dutch loam [1658]

Holland

dykes

protection

PROTECTOR [Oliver Cromwell]

thick shell

Wide shelf [1658]

wide-spread

bridal breakfast

RICH CRUMBS [Richard Cromwell]

indigestion

Ent jalap [1659]

Lapland

reindeer

reign

INTERREGNUM

interview

two persons

Two judges [1660]

cattle show

dairy

CAN [Charles II.]

milk

skimming dish

Dishevel [1685]

tipsy woman

gin

juniper

JUNE [James II.]

Juno

Goddess

House of God

The chief Abbey [1689]

Poet's Corner

Poet's fancy

WHIM [William III. and Mary]

freak

spree

intoxicated

Tocsin [1702]

alarm

frantic

ANTIC [Anne]

antiseptic

medicine

Doctor [1714]

disease

GOUT [George II.]

gouty toe

swollen

Thickening [1727]

projecting

projectile

GUN [George I.]

fowling-piece

pointers

Dog shows [1760]

poultry shows

wild birds

GAME [George III.]

gaming-house

trickster

seared conscience

Toughness [1820]

tarred ropes

rigging

GEAR [George IV.]

royal finery

imperial purple

famous dye

Die famous [1880]

glory

battle

WAR [William IV.]

camp

picnic

Day of maying [1837]

merry-making

rejoicing

VICTORY [Queen Victoria]

The foregoing (as well as similar exercises in other Lessons) is given as a Memory-training task, and a specimen of dealing with Names and Dates when they alone have to be learnt, and not as a model of the best way of dealing with Dates generally. They ought to be learnt in their places as you meet them in the study of History.

INTERROGATIVE ANALYSIS.

The supreme importance of thorough practice in this Method compels me to re-introduce it in this lesson; but let the Pupil understand that he is required to use an *exhaustive* Interrogative Analysis only whilst

learning and becoming an expert in the use of the Method, not afterwards. For the benefit of the linguistic Student, I append examples worked out in different languages, but I deal with them in English also.

Video meliora proboque, deteriora sequor!—*Ovid.* (*I see and approve the better things, I follow the worse.*)

Quis videt probatque meliora?—"Video meliora proboque, deteriora sequor." Quid video?—"Video meliora proboque, deteriora sequor." Quid sentio de melioribus?—"Video meliora proboque, deteriora sequor."—Quid confiteor in probatione mea?—"Video meliora proboque, deteriora sequor." Si video meliora proboque, sequor ne ea?—"Video meliora proboque, deteriora sequor." Quid facio cum deterioribus?—"Video meliora proboque, deteriora sequor."

THE SAME IN ENGLISH.

I see and approve the better things, I follow the worse. Who sees and approves the better things?—"I see and approve the better things." What is my action towards the better things?—"I see and approve the better things." What is the character of the things which I see and approve?—"I see and approve the better things." What is it that is better which I see and approve?—"I see and approve the better things." Are better things which I see and approve distinct from all others?—"I see and approve the better things." If I see and approve the better things, do I follow them?—"I see and approve the better things, I follow the worse." Who follows the worse?—"I follow the worse." What do I do in regard to the worse?—"I follow the worse." What do I follow?—"I follow the worse." Do I follow the worse things as a class or only a few of them?—"I follow the worse." Is my conduct consistent?—"I see and approve the better things, I follow the worse."

Dieu est un cercle dont le centre est partout, la circonférence nulle part.—*Pascal.* (*God is a circle the centre of which is everywhere, the circumference nowhere.*)

Qu'affirmons-nous touchant Dieu dans cette phrase?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Quel rapport établissons-nous entre Dieu et le cercle?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Faisons-nous mention de plusieurs cercles?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Quelle partie de ce cercle se trouve partout?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Où faut-il chercher le centre de ce cercle?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Quelle partie de ce cercle est qualifiée par l'expression "nulle part"?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part." Où se trouve cette circonférence?—"Dieu est un cercle dont le centre est partout, la circonférence nulle part."

THE SAME IN ENGLISH.

What being is mentioned here?—"God is a circle." What is affirmed of God?—"God is a circle." Is the attribute "circle" affirmed of "God"?—"God is a circle." What kind of circle is God?—"God is a circle, the centre of which is everywhere and circumference nowhere." What is everywhere?—"The centre of which is everywhere." Centre of what is everywhere?—"The centre of which (circle) is everywhere."

Where is the centre of this circle?—"The centre of which is *everywhere*." What is the relation between the centre and everywhere?—"The centre of which is everywhere." Is there anything else said about this circle?—"The centre of which is everywhere and the circumference nowhere." What is nowhere?—"And the circumference nowhere." Where is the circumference?—"God is a circle, the centre of which is everywhere and circumference nowhere."

Mit des Geschickes Mächten ist kein ewiger Bund zu flechten.—Schiller. (*There is no entering into an enduring compact with the powers of fate.*)

Mit wem ist kein ewiger Bund zu flechten?—Mit des "Geschickes" Mächten ist kein ewiger Bund zu flechten. Mit welchen Mächten ist kein ewiger Bund zu flechten?—Mit des Geschickes "Mächten" ist kein ewiger Bund zu flechten? Ist ein ewiger Bund zu flechten?—Mit des Geschickes Mächten ist "kein" ewiger Bund zu flechten. Ist kein zeitlicher Bund zu flechten?—Mit des Geschickes Mächten ist kein "ewiger" Bund zu flechten.

Ist keine Freundschaft zu flechten?—Mit des Geschickes Mächten ist kein "Bund" zu flechten. Ist kein ewiger Bund zu schliessen?—Mit des Geschickes Mächten ist kein Bund zu "flechten."

THE SAME IN ENGLISH.

Is there an entering into an enduring compact with the powers of fate?—"There is *no* entering into an enduring compact with the powers of fate." What action is impossible with regard to the powers of fate?—"There is *no entering into* an enduring compact with the powers of fate." Into what is there no entering?—"There is no entering into an *enduring compact* with the powers of fate." What is the nature of the compact into which there is no entering?—"There is no entering into an *enduring compact* with the powers of fate." With what is there no entering into an enduring compact?—"There is no entering into an *enduring compact* with the *powers of fate*." With what powers is there no entering into an enduring compact?—"There is no entering into an *enduring compact* with the powers of *fate*."

Ἀπόδοτε οὖν τὰ Καίσαρος Καίσαρι· καὶ τὰ τοῦ Θεοῦ τῷ Θεῷ.—*Matt. c. XXII., v. 21.*

Render therefore unto Cæsar the things which be Cæsar's, and unto God the things which be God's.

Ἐπάρχει ἐντολὴ ἐν ταύτῃ τῇ γνώμῃ;—Ἀπόδοτε οὖν τὰ Καίσαρος Καίσαρι.

Ἐγενήθη αὕτη ἡ ἐντολὴ ὡς ἀκολουθία τῶν προτέρων λογομένων, ὃ οὖν.—Ἀπόδοτε οὖν τὰ Καίσαρος Καίσαρι.

Ποῖα πράγματα ἀναγκαῖον ἐστὶν ἀποδιδόναι;—Ἀποδοτε οὖν τὰ Καίσαρος Καίσαρι.

Τίνας εἰσὶ τὰ ἀποδοτέα;—Ἀπόδοτε οὖν τὰ Καίσαρος.

Τίτι ἀναγκαῖον ἐστὶν ἀποδιδόναι;—Ἀπόδοτε οὖν τὰ Καίσαρος Καίσαρι.

Ἄλλην ἐντολὴν ἔχομεν, ἢ οὐ;—Καὶ τὰ τοῦ Θεοῦ τῷ Θεῷ.

Ποῖα πράγματα ἀναγκαῖον ἐστὶν ἀποδιδόναι;—Τὰ τοῦ Θεοῦ.

Τίνας εἰσὶ τὰ ἀποδοτέα;—Τὰ τοῦ Θεοῦ.

Τίτι ἀναγκαῖον ἐστὶν ἀποδιδόναι;—Τὰ τοῦ Θεοῦ τῷ Θεῷ.

THE SAME IN ENGLISH.

Is there a command expressed?—"Render therefore unto Cæsar the things which be Cæsar's." Is this command given as a consequence of some previous statement?—"Render *therefore* unto Cæsar the things which be Cæsar's." Unto whom must these things be rendered?—"Render therefore unto *Cæsar* the things which be Cæsar's." What must be rendered unto Cæsar?—"Render therefore unto Cæsar the things which be Cæsar's." Must any particular things be rendered unto Cæsar?—"Render therefore unto Cæsar *the* things which be Cæsar's." Whose things are to be rendered unto Cæsar?—"Render therefore unto Cæsar the things which be *Cæsar's*." What relation is there between Cæsar and the things?—"Render therefore unto Cæsar the things which be Cæsar's." Is there any other command given?—"And unto God the things which be God's." Unto whom must God's things be given?—"Render therefore unto Cæsar the things which be Cæsar's, and unto God the things which be God's." What must be rendered unto God?—"Render therefore unto Cæsar the things which be Cæsar's, and unto God *the* things which be God's." Whose are the things to be rendered unto God?—"Render therefore unto Cæsar the things which be Cæsar's, and unto God the things which be *God's*."

It is scarcely needful to suggest to the intelligent Student that Interrogative Analysis readily applies to all possible problems of memory. Suppose you wish to fix the date of the birth of the poet Longfellow, who was born in 1807 and died in 1882. What was the probable characteristic of the person to whom this name was first applied? He was of a tall physical structure. What name expresses the whole of the physical structure? *The physique*. Who must have an elastic physique?

1 8 0 7

A Clown. When the Clown is in the ring what do you expect? *To have fun*.

1 8 8 2

Suppose you wish to remember the Latin for the word "Abyss." What is an abyss? An abyss is a very large pit. What is the biggest pit you have seen in England? It was a quarry. How were the men carrying about the stones in a quarry? In barrows. With what Latin word does "barrow" form an In. by S.? It sounds like the beginning of the word *barathrum*. The Latin word "*barathrum*" [*Gr. βάραθρον*] means "abyss."

☞ A brief discussion may bring out into bolder contrast the **UNIQUE-NESS** of my Method. Reventlow's pupil, an Anglicised German,* who had received the sobriquet of "Doctor," taught orally,† for some years, his master's system in England. The Doctor quoted with approbation the statements of his critics, that he substituted "Reasoning for memory"! From more than 300 examples of his method, now in my possession and vouched for by his pupils as having been taken down by them in writing from the Doctor's dictation, I select one conspicuous case.

In regard to memorising the statement that "the Posterior Nerve of the Spinal Column is Sensory, and the Anterior Nerve is Motor," the Doctor remarked, "You observe that Posterior and Sensory go together,

[* Dr. Pick.]

† See note on next page.

and that Anterior and Motor go together. The initial letters of Posterior and Sensory are P and S, and the initial letters of Anterior and Motor are A and M. By considering that A and M are in the upper part of the Alphabet and P and S are in the lower part of it, you will be sure to remember that Anterior is associated with Motor and Posterior with Sensory." I admit that the *first time* one hears this method applied the novelty of the principle of it might make an impression; but, after that, the method would fail from its own demerits; because the *steps of an argument* are most difficult to be retained in the Natural Memory, and therefore such a method cannot possibly act as a *Means for Aiding the Memory*. It is obvious that, unless you *first distinctly* remember that Anterior is *connected* with Motor and Posterior with Sensory, there is nothing whatever in *this case* to suggest that the initial letters of those words are to be thought of together. The fact is, these ingenious conceits, special-pleading refinements, and metaphysical subtleties deal only with the *accidents* of a subject and not at all with its *essentials*, and they always require that you should retain by your unassisted Natural Memory the VERY THINGS they profess to help you to remember. So true is this, that if your Natural Memory be not marvellously retentive, your RECALL of the steps of the comparative method is more likely to be wrong than right. In this very case, a Pupil, although he possessed a good Memory and although he repeated the Doctor's *reasoning* many times to his friends shortly after he learned it, found that after six months he remembered it as follows—"A and S go together because they are *far apart* in the Alphabet, and hence the *Anterior Nerve is Sensory*!! And as P and M are *near together* in the Alphabet, therefore the *Posterior Nerve is Motor*!!" Having received no genuine aid to cement together "Posterior and Sensory," and "Anterior and Motor"—*which were the things to be united in memory*—he was left to his *own resources* about the initial letters P and S and A and M, and it must be conceded that his *original* argument, in regard to *them*, was quite as plausible and natural as that of the learned Comparer.* This method

* *Note*.—He did publish a half-crown (afterwards a shilling) pamphlet, on Memory, with a view to excite curiosity without gratifying it, and thus compel his readers to resort to his personal instruction, but the little book led only to disappointment. It contained only one principle which he ever used in his actual teaching—the plan of re-arranging lists of Irregular Verbs in Foreign languages. [To remember the figures 51342, it would be easier, if the *precise order of the figures was not important*, to arrange them thus: 12345!!] The relations between nought and the nine digits are mathematically exact, but between *words* they are infinitely various and the plan required that he should *first* know the *meaning* of the words; and then the labour and difficulty of the re-arrangement in Groups, Families and Classes were so great, that no one ever used the device in practice, or even learned his revised lists. All the rest of the book was made up of "padding," as it has been called. A chapter on the History of Mnemonics—another on the Memory of Animals—another on the Seat of Memory from the ancient and mediæval point of view—another on Aristotle's speculations about association, and some crude ideas of his own, some foreign notions which he considered were "arbitrary," but which he nevertheless thought were "ingenious." The highest form of this "ingenuity" was exhibited in his oral teaching, in the four crucial examples in the text. The fact is, that he never developed or worked out his System, because of its impracticability and difficulty, and hence he appealed to his Pupils to send him any suggestions for the application and extension of his *own* System. Notwithstanding there was no restriction imposed upon the learners of this System, it has never been taught by anyone else or used anywhere for years by anyone. While the Doctor was teaching his System, the followers of the Mental Daubs of Feinaigle and Beniowski, &c., rallied against him bitterly; but having learned since that he really was a disciple of Beniowski, Aimé Paris and Reventlow, and that he is no longer in the field against them, and has left no disciples, they are now endeavoring to atone for their past abuse by canonising him as a Mnemonical Saint. [I

supplies what Medical Students call "Tips," which are usually remembered without recalling what they refer to!! Whereas my System offers genuine *scientific* "Tips," if the phrase be allowed, applicable to all subjects whatsoever, and which are easily remembered.

When words are expressly arranged with *no other purpose* in view except to help retain certain letters, as in the case of the "6 shy Jewesses chose George" before the Pupil had learned Synthesis, it would be impossible to go wrong; but in attempting to transform such special devices into a *working principle* in the real business of life, where words, ideas and facts cannot be adapted to our needs, but where our methods must be adapted to *them*, nothing can be more misleading or disappointing than a resort to these hair-splitting and superficial "comparisons," which not one in a thousand can make and none remember unless he is *subtlety-mad*. If a sensible man could really make much use of this method, he would cultivate such a technical microscopic habit of observation that he would soon see the spots on the sun, but not the sun. How do I manage this case? By dealing *directly and solely with the facts and ideas to be united* in the memory, by correlating Posterior to Sensory, thus:—POSTERIOR...*Post-mortem...Insensible...* SENSORY. Similarly, I connect Anterior to Motor, thus:—ANTERIOR...*Ant...disturbed ant-hill!...commotion!...* MOTOR. By uniting the two unconnected "Extremes" together by means of a *developed Analysis memorised*, I AID the natural memory in the highest possible degree.

EXTRACT FROM QUAIN'S ANATOMY.

"The branches of the External Carotid Artery are eight in number, viz.—three directed forwards, the superior thyroid, the lingual, and the facial; two directed backwards, the occipital and the posterior auricular; and three extending upwards, the ascending pharyngeal branch, together with the temporal and internal maxillary, the two terminal branches into which the artery divides."

Neither the mnemonics of Ingenuity nor the mnemonics of the Imagination can afford any assistance in memorising the facts in the foregoing passage, but they are easily learned by means of Correlations (to be memorised) as follows:—

CAROTID...	rotten...ruinous...IVY (eight branches)...	
	growth...advance...go forwards...	
FORWARDS...	lead forwards...conduct...ductless...	THYROID

have given these details because the book, long since out of print, was the only one that ever appeared in English from a disciple of Reventlow.] Although I have had thousands of Pupils who were *experts* in the Methods of Feinaigle, of Aimé Paris, of Reventlow and of this his Anglo-German disciple, yet I never had *one such Pupil* nor anyone else who ever suspected from my Recollective Analysis [until I inserted the Presidential and Hierarchy Series], or from their mastery of those Systems, what my method of Recollective Synthesis is—a Method which, when Analysis has been mastered as directed, becomes the easiest, quickest, and most effective means for the permanent acquisition of all kinds of knowledge. Nor is this all; none of them ever succeeded in getting rid of Mnemonical Keys, as I have done in all cases whatsoever; nor did any of them ever anticipate my Devices for dealing with difficult examples; nor did they know how to simplify and minimise the Problem of Memory in all cases; nor did anyone of them ever suspect it was possible to develop and strengthen, as I have done, the Natural Memory in both its Stages, and the Concentration in both its Functions.

	spheroid ... whole earth ... many languages...	LINGUAL
	tongue...mouth...face...front...back...	
BACKWARDS...	back of head...occiput...	OCCIPITAL
	occult...secret...confession...	AURICULAR
	aureous ... golden ... high-priced ... high up...	
UPWARDS...	ascending...	ASCENDING PHARYNGEAL
	pharos...lighthouse...intermittent light	
	...temporary...	TEMPORAL
	"be temperate"...maxim...	MAXILLARY

To memorise the attachments of muscles, the student must first of all familiarise himself by diligent dissection with the aspects of the muscles and the actual facts of their attachments. It is possible to memorise their origins and insertions by my System, merely from their written descriptions; but this is not *learning*. It is a vicious system of cramming, which can do no possible good. Once the student has thoroughly familiarised himself with the actual facts, he can proceed to fix these facts in his memory with definiteness and precision by my System. In dealing with facts of such complexity as the origin and insertion of muscles, it is necessary to have free recourse to the assistance of homophones, &c. In the whole of anatomy there is no task so difficult as that of learning the precise attachments of the muscles of the back. Only a small proportion of students ever master these attachments thoroughly, and those who do learn them are unable to retain them for more than a very few days together. By the use of my System it becomes easy for any student to learn the whole of the attachments, as well as all the other facts of Anatomy, or of any other study; and, once thoroughly learnt, they will never be forgotten. Let it be thoroughly understood that my System is no substitute for dissection and experiment. You can get a COMPREHENSION of anatomical facts only by actual experience, and to attempt to acquire an *understanding* of them from books is to substitute a knowledge of words for a knowledge of things.

[CAUTION.—Let not the medical student, nor any other of my pupils, disregard the rest of this and my other Lessons because in any particular illustration I give he sees how he can apply my System with great advantage to his studies. Let him rather master most thoroughly each exercise, whether it pertains to his studies or not, and *then, when he has finished all the Lessons*, he can apply my System to his studies or specialty with the skill of an EXPERT, and acquire permanently as much knowledge in a week by its aid as he could in a month or in many months without it.]

The following examples will indicate one way in which the student may proceed in order to memorise the attachments of the muscles of the back:—

- (1.) First make a homophone of the name of the muscle.
- (2.) Indicate each attachment of the muscle by two words. The initial letter of the first word should indicate the part of bone to which the muscle is attached—*e.g.*, Sp = spinous process, T = transverse process, R = rib, &c. The second word should indicate

by its consonants the *numbers* of the bones to which the attachment is made.

(3.) Correlate the homophone of the muscle to the first pair of words, and the first pair to the second pair.

EXAMPLE.

"The SPLENIUS COLLI is attached inferiorly to the spinous processes of the third, fourth, fifth, and sixth dorsal vertebræ, and superiorly to the transverse processes of the first two or three cervical vertebræ."

spleniUS COLLi (homophone) SCOLD.

SCOLD...cold...marble...image...SPLENDID IMAGE...
statue...statuette...chimney ornament...clock...TIS TIME.

In the first pair of words the initial of Splendid shows that the attachment is to the Spinous processes, and the word Image indicates that the vertebræ implicated are the third to the sixth. The second pair show that the transverse processes from the first to the third are those into which the muscle is inserted.

"The SPLENIUS CAPITIS arises from the spines of the seventh cervical and two upper dorsal vertebræ and from the ligamentum nuchæ. It is inserted into the lower and back part of the mastoid process, and into the outer part of the superior curved line of the occipital bone."

spleniUS CAPItis (homophone) ESCAPE.

ESCAPE...flight...projectile...trajectory...conic section...

split...spliced...tied...ligatured...
new keel...ship...mast...
masticate...eat...drink...sip...

SPLIT CONE.
LIGAMENTUM NUCHÆ.
MASTOID.
OCCIPITAL.

REMARK.—The impatient, impulsive and wholly unreflecting pupil sometimes says, "Easy as learning by your System is, *it does take time to learn by it!*" Yes, he is quite right. It takes some time; but, the true mode of judging my System is, to compare the time required by the unassisted Natural Memory to learn the exercises of this and the other lesson papers with the time taken to learn them by the aid of my System!! Without its aid, the unassisted Natural Memory would require a very, very long time to learn them [the great majority of unassisted Natural Memories could *never* learn them], and a dreadfully tedious wearying work it would be!! With my System's aid, they can all be easily and pleasantly learned in *one hundredth part* of that time! This is the honest way to look at it.

But, this restive, uneasy, work-dreading and unstudious critic compares the time required by my System's aid to master the most difficult memory tasks, not with the time demanded by the unaided Natural Memory to learn them, but *with time absolutely wasted and entirely thrown away!!* His unconscious comparison is between *not learning* them and learning them exactly and permanently!!! It is this shiftless pupil who never learns anything at all, or never learns anything thoroughly, who alone complains at my System saving "*ninety-nine one hundredths* of the time that the unassisted Memory would be occupied in making the *same acquisition with equal thoroughness!!* Yet these frivolous people, if they really do apply themselves to the study of my System, often win great success and become Memory-Athletes.

PRIME MINISTERS OF QUEEN VICTORIA.

With the dates of their Administrations.

Lord Melbourne (who was also Prime Minister in the concluding part of the preceding reign), Sir Robert Peel, and Lord Aberdeen each formed a single administration. The other statesmen having been at the head of more than one Government, are dealt with by means of Double Inclusions. Thus, Lord John Russell's first administration is indicated by the word RUST, and his second by RUN. Lord Derby's administrations are distinguished from Mr. Disraeli's by the vowel employed in the Double Inclusion—De for Derby and Di for Disraeli, the three governments of the former being indicated by the words DEBT, DEN and DEEM respectively, while the two of Mr. Disraeli are signified by DITTY and DIN. The Double Inclusions for Lord Palmerston are PAT and PAIN, while those of Mr. Gladstone's governments are GLAD and GLEAN, and the Marquis of Salisbury's SALT and SAWN.

VICTORIA...first toast...foaming tankard...foaming (1837)...southern sea...southern seaport...*Melbourne*...borne...carried...horseback...ride (1841)...ride at anchor...ship...bark...*Peel*...peel rushes...*rush* (1846)...bullrush...bull ring...iron...*Rust*...rusty coat...poor relation...loan (1852)...mortgage...*Debt*...ledger...ledger line...line (1852)...verse...chapter...dean...*Aberdeen*...Scotch...leal (1855)...disloyal...Fenian...*Pat*...patriot...love of country...love (1858)...“cupboard love”...cub...lion...*Den*...dent...tooth...lip (1859)...bitten lip...*Pain*...sharp pain...sharp taste...chili...chill (1865)...sweat...*Run*...runagate...Billingsgate...Billings...*Josh* (1866)...Joshua...Jericho walls...demolish...*Deem*...think...act...achiere (1868)...success...song of triumph...*Ditty*...funny song...making fun...chaff (1868)...banter...mirth...*Glad*...glee...choir (1874)...voices...noise...*Din*...cannonade...fortification...fosse (1880)...ditch...field...*Glean*...wheat...full-eared...full (1885)...full moon...Spring tide...salt sea...*Salt*...Lot's wife...“pillar of salt”...effigy (1886)...polished marble...shining...*glean*...darkness...darkening water...cuttle...fish (1886)...sawfish...*Sawn*.

Let the Pupil memorise the foregoing so that he can recite the Series correctly and with the greatest speed.

MNEMONICAL KEYS.—What folly to use an artificial Series of 100 words, which are committed to memory only *after* a study that would suffice to master my entire System—and then try to tie up to these words the Kings of England, American Presidents, &c. &c., by means of mental daubs or childish stories!! On the other hand, my Pupils find that wherever there are IDEAS, or words as their representatives, to be cemented together, they can unite them indissolubly in their memories by means of “true links of thought” or memorized correlations. A gentleman who, when a boy, used to commit to memory before the public 25 or 50 lines of prose or poetry, recently told me that he never knew nor cared to know what the prose or poetry meant!! He invented a silly story to tie the first line to the first Key-word, the second line to the second Key-word, &c., &c., and all he had to do in reciting, was to think of his Key!! and recall what he had tied to each word of it. The next day he could not recall even one line of it! He added that the *practice* of inventing these false mnemonical stories had cultivated his fancy to such a morbid degree, that his mind now wanders uncontrollably, and as a consequence he now never receives a vivid *first impression*!! and hence, he says, *he has the worst memory in England!*

☞ I am the only Teacher of Memory who has succeeded in getting rid of Mnemonical Keys—not only in some cases but in all cases, and for this emancipation, as well as for my other Original Methods and Discoveries, I am constantly in receipt of the most acceptable appreciation from my grateful clients.

NAMES AND USES OF THE NINE PAIRS OF CRANIAL NERVES.

CRANIAL NERVES...head...casque...hooP (9 pairs)...barrel of oil...oil factory...OLFACTORY (1st pair)...manufactory...smoke...*smell*...scent-bottle...glass...optical glass...OPTIC (2nd pair)...optician...eyeglass...*sight*...eye-witness...ocular demonstration...MOTORES OCULORUM (3rd pair)...ocular motions...*move the eye many ways*...tear in the eye...PATHETIC (4th pair)...moving...*move the eye obliquely*...obtuse angle...triangle...TRIGEMINAL (5th pair)...gem...sparkling...*eye*...eyetooth...*jaw*...talk...*tongue*...sensitive...*feeling*...good feeling...good taste...*taste*...salt water...waves...*motion*...ocean...sailors...absent from home...ABDUCENT (6th pair)...sent out...see out...*moves the eye outwards*...ordered to face outwards...AUDITORY AND FACIAL (7th pair—hearing and expression)...face...mouth...ate...EIGHTH PAIR...ate a pear...smooth skin...glossy...*Glosso-pharyngeal*...congeal...unfixed...vague...*Vagus* (or pneumo-gastric)...gusty...blown back...back bone...*Spinal accessory*...(*sensory and motor*)...spines...sharp criticism...hypercritical...HYPOGLOSSAL (9th pair)...glossary...foreign tongue...*Tongue Muscles*.

HOW TO LEARN MORSE'S TELEGRAPHIC ALPHABET AND THE ARMY FLAG SIGNALLING CODE IN ONE LESSON.

(1) In this Alphabet, Dots and Dashes are used to represent the letters of the Alphabet. When the equivalents of each letter in Dots and Dashes are learned, the Pupil only requires practice with the machine to become an expert Telegraphic Operator.

In learning Morse's Alphabet, I use *temporarily* and *provisionally* the word Short for Dot—and the word Long for Dash—and to represent Short I use the letter S, and for Long I use the letter L. So, hereafter, L always means a Dash and S always means a Dot. The letter A is represented by a Dot and a dash, thus . —; and in my way it is represented by S, L. B is represented by a Dash and three Dots, thus — . . . or in my way by L S S S.

(2) Now, as in my Figure Alphabet neither *h* alone, *w* or *y* was ever reckoned, so in this case *h*, *w* and *y* are never considered. But, whilst not reckoning vowels at all, nor *h*, *w* or *y*, however combined, I do count any two other consonants coming together as two separate consonants, contrary to the rules of the Figure Alphabet. ☞ The only consonants I consider or make use of, are L and S.

(3) The Pupil is now prepared to make a word that shall indicate Dots and Dashes. What is the equivalent, in Dots and Dashes, of the word Soil? It means [see above] S Short [Dot], and L Long [Dash], or the letter A. Now, to remember that A in the Morse Alphabet is represented by a Dot and Dash, or by . —, I must correlate the letter A to the word Soil. Memorise the Correlation, thus: A...ale...hop gardens...SoiL.

(4) To remember that B is represented by a Dash and three Dots, or by — . . . I must correlate the letter B to the word LaSSeS, thus: B...bee...spelling bee...lads...LaSSeS. Let the Pupil not proceed to the next letter till he has thoroughly memorised the Correlation of the one he has reached—one at a time and perfectly, and he will soon be able to

instantly answer as to the equivalents in Dots and Dashes of each of the letters of the alphabet. And then, and not till then, let him commence his practice with the Telegraph machine. And if the Pupil has a poor memory let him make his own Correlations, and learn *them* instead of learning mine. ☞ The most rapid and reliable Telegraphic Operator I ever knew, told me that it took him three months to learn Morse's Telegraphic Alphabet or Code given below, and yet he said that if he had then known my System, he could have learned it perfectly in one hour!! By my System, the least familiar and wholly unconnected ideas can be welded together permanently by natural links.

A	ale...hop gardens	...SoiL	. —
B	bee...spelling bee...lads...	...LaSSeS	— . .
C	sea...damaged ship...fallen mast	...LayS LooSe	— . — .
D	dear...sweetheart...jilted...	...LoSS	— . .
E	... ..	...eaSe	. —
F	effort...rope-dancer	...hiS SoLeS	. . — .
G	gee...plough...furrow...old age	...life's winter...hoLLieS	— — .
H	aspirate...asphalte...road...	toll road...aSSeSS	. . . .
I	eye...cold eye...serpent...	...hiSS	. .
J	jay...blue...paint...oilman	...SeLL oiL	. — — —
K	cayenne...hen...Gehenna...pit-hole...	...whoLeSaLe	— . —
L	ell...old yard...farmyard...jackass	...SLy aSS	. — . .
M	eminent...high position...	...hiLL	— —
N	energetic...indolent...lawless	...LawS	— .
O	oath...oath of allegiance...	...LoyaLLy	— — —
P	pea-seed...sow thoroughly	...SLOWly Sow	. — — .
Q	acute...cunning...deep...well...awe...	...LL iS Low	— — . —
R	arbitrary...autocrat...ruling alone	...SoLuS	. — .
S	Esquimaux...snow...alps...	...SwiSS	. . .
T	teacup...cracked...leaky	...hoLe	—
U	yew bow...bowman...attack	...aSSaiL	. . —
V	venous blood...loss of blood...	faint sighs...SighS So aLWay	. . . —
W	double...duplicity...simplicity	...SiLLy	. — —
X	executed...homicidal perjury	...LieS SLay	— . . —
Y	wise...foolish...idiotic puller	...haul a SheLL	— . — —
Z	zeal...warmth...cold...hail	...haiL a LaSSie	— — . .
	(or), said he...called her	...haiL a LaSSie	— — . .
	& join together...overcrowded hovels...	...aLL iLL	— — — —

In Army Signalling by means of Flags, the above Code is used, as described above [See Manual of Instruction in Army Signalling, 1884], with a few points in addition. If the Pupil wishes to add any further particulars, or should any changes be adopted at any time, he will know how to deal with them—in fact, as in other cases, so in this, it is better for him to make and memorise his own Correlations and send them to me for criticism.

FULL STOP (.) ...point...point out...see...eyes
 ...three eyes...III, or
ERASURE ...blot out...dot out...dotted
 line...line of dots...

STOP	...leave off...don't tease...T's ...line of T's... ————
GENERAL ANSWER...	correct answer...right... "right to a T"...T... ————
REPEAT	...mock...imitate...I M I, or . . . ————
SIGNALLER'S INDICATOR...	indication...clear ...hazy...A's...two A's... . ————
CIPHER SIGN	...Ci-Ci...C C... . ————
BREAK SIGNAL	...break...bend...lean... foreshorten...four shorts...
MESSAGE ENDS	...end...extremity...lower extremity...toe...VEto...VE... . . . ————
OBLITERATOR	...literary...letter...double letter...WW... . ————

THE BRITISH TERRITORIAL REGIMENTS.

Many who know the regiments of the line well by their now abolished *numbers*, cannot remember their new territorial names. They can easily learn them by the aid of Correlations. Here are specimens:—

OLD NUMBER.	MEMORY INTERMEDIATES.	PRESENT NAMES.
1st. heaTh	...heather...Scotch...	<i>Royal Scots.</i>
5th. howL	...loud sound...thunder...	<i>Northumberland Fusiliers.</i>
6th. waGe	...wage war... Warwick...	<i>Royal Warwickshire Reg.</i>
7th. Key	...whiskey...fusel oil...	<i>Royal Fusiliers.</i>
8th. waVe	...water...pool...	<i>Liverpool Regiment.</i>
9th. Bee	...behave... "before folk"...	<i>Norfolk Regiment.</i>
10th. TieS	...links...	<i>Lincolnshire Regiment.</i>
11th. weTteD	...Exe stream...Devonshire...	<i>Devonshire Regiment.</i>
12th. TwiNe	...cord...strangle...suffocate...	<i>Suffolk Regiment.</i>
13th. auTuMn	...tumbler...somersault...	<i>Somerset Light Infantry.</i>
15th. hoTeL	...a lift...a crane...a stork...	<i>East Yorkshire Regmt.</i>
16th. ThatCH	...cottage...cot...bed...	<i>Bedfordshire Regiment.</i>
17th. DuKe	...earl...Earl of Leicester...	<i>Leicestershire Regiment.</i>
18th. TouGH	...hard...rock...shamrock...	<i>Royal Irish Regiment.</i>
28th. weNCH	...black girl ... blackmail ...Scottish riflers...	<i>Scottish Rifles (1st batt.).</i>
90th. BuSs	...mail coach ... blackmail ...Scottish riflers...	<i>Scottish Rifles (2nd batt.).</i>


The purpose of this Exercise must be at once clear to any unprejudiced Englishman. Suppose a Pupil is interested in the regiment which was known as "The 19th Foot," and wants (now that the numbers are abolished) to remember its territorial name. He can memorise this Correlation:—The 19th... "To By"... Laurence Sterne... Yorkshire rector... *Yorkshire Regiment*. Probably, if he knows that Sterne was a Yorkshire rector, as soon as he thinks of "The 19th" and "Yorkshire Regiment" together, Uncle Toby, the brightest character in all Sterne's fiction, at once occurs to him as an aid in translating the familiar "19" and getting at the unfamiliar "Yorkshire Regiment."

I am told that a victim of Mnemonics, who sees in every list a Key! has said that the translations of the old numbers of the regiments from "Heath" to "Noose" (used to translate old regimental numbers, and for no other purpose), are meant to form a "Key" of 20 "Pega." Is the man ignorant that British regiments *were* known by *number*-names, and *are* now known by *territorial* names; or has the ridiculous and false way in which he once trained his imagination enabled it to distort in his mind the useful things he sees as well as the stupid things he taught himself to fancy?

To make room for this note and to make it clear to the most thoughtless that it is as isolated facts—the old *number*-name to the *new* territorial name in each case—that the regiments are dealt with, we have left out some of the Correlations which were in former editions.

From the foregoing exercises it will be seen that there are no facts, however complicated, of Science, History, &c., &c., &c., or in Daily Life, which my System cannot cope with and render their mastery easy—proving thus the greatest possible Labour-Saver and Time-Saver, and therefore Money-Saver.

Let the Pupil endeavour to apply the principles involved in dealing with the foregoing examples to OTHER and DIFFERENT cases and send samples to me for criticism.


 Let the Pupil regard my Correlations as Samples merely to show him how Correlations are made, and let him *make* and *memorise* his own in all cases. [In every case I have used the less obvious Correlations, leaving the most obvious for the Pupil.] Let the Pupil not fail to memorise the Proper Names, Dates of Births and Deaths of Great Men, and the Order and Dates of the Kings of England. But it would be better still if he learned ALL the exercises, and if he takes little interest in some of them, the better *they* are as a true MEMORY-TRAINER and CONTINUITY-TRAINER.

Let the ambitious Student who wishes to obtain the unrivalled advantages of my System as a Method of Study, as well as its power as a Device for memorising and as a Memory-TRAINER, write out and send me an exhaustive set of questions on this lesson with the replies to them. *Let no important point be omitted.* The Pupil will, if he carries out this suggestion in regard to this and the remaining lessons, derive great subsidiary advantages, the full benefit of which will be obvious in the Last Lesson.

REST FROM WORK.—Pupils who are preparing for examination or are overworked in business, sometimes excuse their not sending exercises by saying they need all their leisure time for rest. True rest is not gained in idleness, but in *change* of mental occupation. If a student works eight hours per day at his regular studies, and rests at the end of every two hours, by spending half-an-hour over my System, he will find every time he returns to his regular task that he comes to it refreshed; and he carries it on with greater zest and alacrity in consequence of his devotion to my System during the intermediate half-hours. Let any pupil make the experiment and he will soon discover that he nearly doubles his usual acquisition every day!!! Thus doing the exercises in my lessons prepares my pupils to return to their other work with reinvigorated minds—besides giving them a new Memory and Continuity, which will lessen the labour over their future tasks and enable them to revive more readily than formerly, even what they learned before studying my System.

After an exhaustive enumeration of all you know of each extreme it would be easy to make Correlations, thus:—

WEAVER.	KIN.
1. — “The Sisters three.”	—
2. — Linen...Napkin.	—
3. — Cloth...Doeskin.	—
4. — Thread...Connection.	—
5. — Thread...Snarl...Kink.	—
6. — Wool...Lamb...Lambkin.	—
7. — Child's Loom...Kindergarten.	—
8. — Shuttlecock...Throw...Kintal.	—
9. — Cloth...Sails...Ship...Kinship.	—
10. — Spitalfields...Cornfields...Pumpkin.	—
11. — Yarns...Sailors' Yarns...Narrative...Relation.	—
12. — Spindle...Dwindle...Dwarf...Manikin.	—
13. — Woof...Warmth...Affection...Family Affection.	—
14. — Spider...Cobweb...Old House...Household Relations.	—
15. — Fate...Hopeless...Sanguine...Consanguinity.	—
16. — Web...Deceit...Cheat...Cozen...Cousin.	—
17. — Captain Web...Swimmer...Fish...Fin...Affinity.	—
18. — Coventry...Lady Godiva...State of Nature...“One touch,” &c.	—
19. — Wool...Hair...Hare & Burke...Accomplices in Blood...Blood Relations.	—
20. — Steam-power Loom...Engine...Furnace...Coal...Kindler.	—

By this practice of finding as many Predicates as possible of each “extreme” through In., Ex. and Con., the Pupil learns to look on “all sides” of a word or subject—a habit of the very greatest value—a habit which can be *acquired* by the careful dealing in this way with all the words in the Presidential Series, and by placing over each word 1, 2, or 3, to show the relation that it bears to the Correlating Word itself.  Let the Pupil send me a list of *other* words related through In., Ex. and Con. to each of the words in the Presidential Series.

Readiness in making Correlations comes not from the constructive power of the imagination—the imagination is not at all concerned in the act; people can make Correlations *instantly* who have no imagination—but it arises from the memory power of taking quickly an “account of stock” of the ideas we already possess—the power of *consciously summoning up* all we know of a word or subject through In., Ex. and Con. It is the exercise of *retentiveness* and nothing else, except that revivals are limited to In., Ex. and Con.

REMARKS.—My Pupils can strengthen their retentiveness or *reviving power* by recalling and describing to friends the scenes and events of the day, as soon after their occurrence and as frequently as possible. Let them also never hear a lecture or sermon without giving as full an account of it as they possibly can to their acquaintances. They will soon find in what particulars their mind wanders, and they can hereafter pay closer attention to such matters. It is a high attainment to be able to give a graphic description of a scene, a show or exhibition of any kind; but I recommend this practice because it invigorates the re-

viving power of the Memory, and helps to bring the Memory under the control of the Will. Let the Pupil repeat many times every good story or anecdote he hears, &c., &c. I have known many Pupils who had naturally no *command* of language, and whom the phrenologists would have discouraged from attempting to acquire instant control over words, become *fluent* talkers and speakers, by acting on the suggestions here given, and by doing all the exercises demanded by my System. And it does not take one-tenth of the time that one might suppose. It comes about so quickly that the Pupil can scarcely perceive when the change took place.

ALWAYS ABRIDGE THE PROBLEM OF MEMORY.

There are three kinds of Levers:—

First Order.—When the Fulcrum is between the Power and the resisting Weight. [Here the Fulcrum in the middle.]

Second Order.—When the Fulcrum is at one end and the Weight nearer to it than the Power. [Here the Weight in the middle.]

Third Order.—When the Fulcrum is again at one end, but the Power nearer to it than the Weight. [Here the Power in the middle.]

Or, briefly—

1st Order.—Fulcrum in the middle.

2nd Order.—Weight in the middle.

3rd Order.—Power in the middle.

☞ When, as in 1st Order, the Fulcrum is in the Middle, it is obvious that the Power is at one end and the Weight at the other end. So by remembering in each case which is in the *Middle*, the Pupil necessarily *knows* that the other two elements are at the ends. Since both Order and Middle are repeated in each case, both Order and Middle may be disregarded, and all the Pupil has to do is to correlate [and memorise his Correlations], First to Fulcrum, Second to Weight, Third to Power, and he knows the three kinds of Levers—

FIRST ...first piece...last piece...crumb...

FULCRUM.

SECOND...minute...hour...clock...clock-weight...


WEIGHT.

THIRD ...third finger...ring...political ring...political power... POWER.

OXFORD & CAMBRIDGE UNIVERSITY BOAT RACE, 1829—1885.

The *thoughtful* Pupil will notice the following particulars in my Method of dealing with the above:—(1) In dealing with a series like this, Mnemonics is *hors de combat* without the boasted “Wheelbarrow” euphemistically called a “Key”—100 objects, sometimes 500 or 1000, ideally placed on the floors, walls, and ceiling of rooms, or otherwise *localised* in figured situations, called “Pegs.” To this series of fixed objects the Mnemonist “associates” by his “Links” or “Associations” any other series, such as the Kings of England, Popes of Rome, the Sixty-four Elements of Chemistry, the Thirty-nine Articles, the Dates of the Oxford and Cambridge successes in the University Boat Race, Topics or Heads of numerous Sermons, Addresses, or Lectures; in short, everything and anything that is to be remembered!!!—a Pro-

crustes' Bed to which everything is to be fitted by Contortion or Distortion, with the inevitable result of making this Anarchical Machine "a measure" of the Universe and of all that is therein, and the operations of the mind of the Adapter the very Climax of Artificiality!!! By this False Process, the Natural Sequence of Ideas in the Subject-Matter itself is always either introverted, perverted, or destroyed. I use no Key or Artificial Set of unrelated words—but by CORRELATIONS I deal directly with the *things* or *ideas themselves*.—(2) I do not even use the words Oxford or Cambridge in memorising the respective Dates of their successes!!—(3) To indicate a Date I translate the two last figures of it into a word, as, for 1836 I use MATCH, as that translates 36—and these Date-words I Correlate together; and to indicate when Oxford won I add *d* or *t* to the Date-word, thus making in all the Oxford cases a word containing *three* sounded consonants (thus "A Round" = 42 and "one," in 1842 Oxford won), and by *exclusion* and those words containing only two sounded consonants *must* be Cambridge winnings!! Similarly, in learning the Dates of the Battles of any country, we could indicate, by an added consonant, the battles won, and all Date-words lacking that designation must note the battles lost, &c. The application of this principle is varied!!—(4) To indicate the two years, 1831 and 1835, when no race was run, but in which a notable event occurred, I translate the entire years, as, 1831 into "DEAF MAID," and 1835 into "A TOO HEAVY MAIL." And to indicate the year 1877, where neither Oxford nor Cambridge won, but when there was a "dead heat," I use the phrase, "To have a Gig."—(5) Since the Putney course has been used, all but nine of the races have taken place on *Saturday*. I fix two exceptions, after having first Correlated the Time of the Races; thus, "TIME"—end of time—end of the week—"Saturday."—(6) As Oxford won *continuously* from 1861 to 1869, both inclusive, it is sufficient to correlate Date-words for those two years together, thereby inferentially indicating the intermediate years!!—(7) As there was a race *every year* from 1856 to 1885, it would be sufficient to correlate together the Date-words for the Cambridge successes for *those years*, and by *exclusion* we should know the years also in which Oxford won or *vice versa*!!—(8) All the facts mentioned in the *foot notes* are indicated in the course of the Correlations!! and without the possibility of producing any confusion!!—(9) As the colors of both Universities are *blue*, it is only necessary to memorise the *shades* of blue, as is done below.—(10) In addition to the mass of facts treated below, my Method would enable the Pupil to attach any number of additional facts to each of them by memorised Correlations, such as the number of lengths either boat won by, the names of each crew, &c., &c., &c., &c.

 Read each Correlation once, analysing the relation between the words of which it is composed, then repeat it backwards and forwards, not reading it, but reviving the impression in your head: when you have done this quickly six times, repeat the extremes together, without the intermediates. In this way carefully memorise the entire list of Date-words, so thoroughly as to make concurrence between them, and be able to think of the Date-words and facts (cholera, &c.), without repeating the intermediates, and rapidly to name, forwards or backwards, the years in which Oxford or Cambridge won (by thinking the Date-words and their indication of Oxford or Cambridge), so as to

recite the series thus : 1829, Oxford ; 1831, Cholera ; 1835, Challenge ; 1836, Cambridge ; 1839, Cambridge ; 1840, Cambridge ; 1841, Cambridge ; 1842, Oxford, or vice versâ, &c., &c. ; then recite the entire series both ways at least 20 times from memory ; and *then* report to me how long it takes you to recite the series. And afterwards recite the series before your friends, both forwards and backwards, and let them also examine you on the lesson in any way to test your memory—never telling them how you learned the series—and only letting them have the accompanying paper.

COLOURS—Boat race...boat...blue sea...BLUE.		
OXFORD...ox...heavy...heavy clouds...DARK...dark coins...pence...“d”...add “d”		
CAMBRIDGE...bridge...arch...spring...LIGHT.		
RACE DAY—	Racing boat...sliding seat...sat...SATURDAY *	
UNIVERSITY—	Universe...orb...motion...speed...race—	BOAT RACE—
1829. NEW BOAT—	Beau...maid—	
[1831.] DEAF MAID—	Dress...collar—	CHOLERA †
	...death...black death...black mail—	
[1835.] A TOO HEAVY MAIL—	Armour...champion—	CHALLENGE ‡
	...duel...fire—	
1836. MATCH—	Wedding...tour—	
1839. MAP—	Route...course—	
1840. RACE—	Track—	
1841. ROAD—	Carriage drive...circular drive—	
1842. ABOUT—	Turning round...dizzy—	
1845. REEL—	Stagger...mortal wound...MORTLAKE §...Killarney—	
1846. IRISH—	Linen...drapers...outfitters—	OUTRIGGERS |
	...oar...blade...knife...cut...strings—	
1849. HARP—	Rapid fingering—	
1849. RAPID—	Flight...bird...FOUL ¶...waterfowl...landfowl—	
1852. LAND—	Landlord—	
1854. LAIRD—	Country seat—	
1856. LODGE—	House...door...lock—	
1857. LOCKET—	Chain...cable...ship...keel—	KEELLESS **
	...lesson...lesson-book—	
1858. LEAF—	Paper...folding...overlapping—	
1859. LAPPET—	Tippet...tip up...sink—	SANK ††
	...rose...stalk...stilts...Stilton—	
1860. CHEESE—	Bait...trap...entrapped—	
1861. CHEATED—	Orocodile tears...weep ¶¶...sackcloth and ashes—	
1869. ASHPIT—	Cinders...coal—	
1870. GAS—	Escaped—	
1871. CAUGHT—	Taken...receipts—	
1872. GAIN—	Money...registered letter...envelope—	
1873. GUM—	Stick...slip...slide—	SLIDING SEATS §§
	...sliding rule...ivory rule...tusk—	
1874. GORE—	Blood...bloodshed—	
1875. GUILT—	Murder...wound—	
1876. GASH—	Scar...car—	
1877. TO HAVE A GIG—	Two wheels...equal motion...equal—	DEAD HEAT ||
	...tie...knot...knotty...crabbed—	CRAB ||
	...teeth on edge...mouth...gift horse...	
1878. GIFT—	Bequest...question...open—	
1879. GAPE—	Make faces—	
1880. FACET—	Moon-set...MONDAY ¶¶...mouldy—	

* Out of 36 races over the Putney and Mortlake course, all but 9 were rowed on a Saturday.

† Not rowed owing to prevalence of cholera. ‡ The challenge of 1834 still unaccepted.

§ First race over the Putney and Mortlake course. | First Race rowed in outriggers.

¶ In this Race there was a “Foul”—that is, a collision between the Boats.

¶¶ First Race in the present style of Boats without keels. †† The Cambridge Boat sank.

‡‡ Oxford won for 9 years. §§ Sliding Seats used for the first time.

|| The Race was a Dead Heat. The Oxford bow-man caught a crab, and sprang his oar when leading.


¶¶ Rowed on a Monday because of fog on Saturday. The first race postponed.


1881. FOETId—	Stench...faint—	
1882. FEINt—	Combatant...hero—	
1883. FAMEd—	Glory...bright—	
1884. FAIR—	Fine...sunshine...moonlight...moon—	MONDAY*
	...second day... "the waters"†—	
1885. FLUID—	Flowing stream—	
1886. FISH.		

HOW TO MEMORISE THE RATIO OF CIRCUMFERENCE TO DIAMETER BY CORRELATIONS.

If the Pupil did not learn the 71 Sentences below when he studied Supplement to First Lesson, let him give special attention to this Exercise, as it is a very valuable one. When you have properly gone through it, and thoroughly mastered it, so as to be able rapidly, without hesitation or stumbling, to repeat the first 149 figures of the "Ratio" to your friends, much will have been accomplished towards general strengthening of your memory, cure of Mind-wandering, and promotion of Self-confidence. And, with a little perseverance and exercise of the brains, any schoolboy can master so much of this Exercise. But, besides this general improvement of valuable faculties, the Pupil will have learned how to commit to memory difficult poetry, prose, conjugations, declensions, mathematical formulæ, &c., by Correlations. If you want to know what the "Ratio" means, look to page 126 of this lesson; all you have to do at present is to learn 15 of the following sentences, and by their aid say the 149 figures which these sentences represent, and which you have already written down on an exercise on your Figure-Alphabet Lesson.

Every Pupil must learn at least 15 of the following sentences by the aid of Correlations, if he did not learn them by Interrogative Analysis in Supplement to First Lesson, and then *think* the words in the 15 sentences, and *say* the 149 figures which the words in those sentences represent.

 To try to learn any of the figures by repetition is *not* an exercise in my System.

 To recite the entire series of 708 Figures of this Ratio, in the exact order, is a feat quite impracticable to one with unassisted Natural Memory. To my pupils the feat is not a difficult one.

The following sentences contain the entire series of 708 figures, translated in accordance with the Figure Alphabet in the Supplement to the First Lesson:—

Mother Day will buy any shawl.

My love, pick up my new muff.


A Russian jeer may move a woman.

Cables enough for Utopia.

Get a cheap ham pie by my cooley.

* Rowed on Monday, owing to Prince Leopold's Funeral taking place on the Saturday.

† See Genesis i. 7.

 For complete details, see "Record of the University Boat Race," published by Bickers & Son, London.

The slave knows a bigger ape.
 I rarely hop on my sick foot.
 Cheer a Sage in a fashion safe.
 A baby fish now views my wharf.
 Annually Mary Ann did kiss a jay.
 A cabby found a rough savage.
 A low dumb knave knew a message showy.
 Argus up my fire rushes.
 A bee will lose life in enmity.
 A canal may well appear swift.
 Never have tidy Dick early.
 Has no fear to see a new ghost.
 A beam fallen at dizzy Lulu.
 We will be a sure arch in a new pier.
 Feeble are poems home-fed.
 A butcher ran off feet soppy.
 A College shall buy my mirror.
 Shoot in a fury, ugly Sheriff.
 Naomi may give Jack half my tea.
 Shall we now cut Annie's topaz.
 Peter will shear a village hedge.
 Upon my ridges moor a fish.
 To soar lower may nudge a Jury.
 Find my map, my Chiswick.
 Now choose anew our better Eden.
 Coming near love kisses.
 Ji-Ji has jammed a whole leaf off.
 Take rough, fat, lamb-soup.
 A nice patch in a funny panel.
 Raise bad cattle, major.
 A magic fop knew a well opossum.
 Joses taught him my sole hymn.
 A sailor if vain has a rich joy.
 You allow no time for authorship.
 Let a pert lad teach us.
 A bear may muzzle a gun-case.
 My shallow cool pulp-tub.
 A lamb's pint of shady dew.
 Come off top, my newish ditty.
 A cup may dazzle at a haughty hovel.
 Refuse queer, rich, new muck.
 Baby Jenny wooing her pale cheek.

Melt half a flakey lining.
 Any roof bought in New Cobham.
 Heave it off, my sooty deep robe.
 A tiny hoop of mamma shook a mummy.
 China warriors usually weigh each a share.
 A missive chosen at my ball.
 Stitches pin our ruffs.
 Going now amiss by our machine.
 Full looms push chains.
 No quail will shape my big pie.
 A heavy ship will soon annoy a new rock.
 Her puppy shone as a choice care.
 Bacchus may swear at any match.
 A shy heavy wife shut a bible to-day.
 Suasive weapons win him fame.
 Cuckoos untamed are touchy.
 We buried Dobson by five.
 You love Annie Laurie, you wretch of a Doge.
 He may pick up pipes, Rachel.
 Picus is safe to accuse us.
 No Pasha may deny my awaking him.
 Folk may run his ferret home.
 Escape it early to-day, if you may.
 Paphia's legacy pay off wholly.

1. You cannot wish to recite the Ratio of the Circumference to the Diameter without *first* thinking of the word *Ratio*. Correlate Ratio, as the BEST KNOWN, to the word *Mother*, the first word in the first sentence, thus :—

RATIO...Relation...Dearest relation...Mother.

And memorise the Correlation. You do not memorise it by *reading* it over, but by repeating it from memory forward and backward several times, always concluding by recapitulating the two *extremes* : thus, Ratio...Mother, Mother...Ratio.

- Next memorise the first sentence by Synthesis, for you must see at once that Analysis will not apply to the successive words in a sentence. Hence, MOTHER must be Correlated to DAY [unless you know some Mother Day very well indeed, so that there is a strong concurrence over the word] :

MOTHER...Lullaby...Sleep...Night...DAY.

Whenever you Correlate any part of a sentence, repeat that part so as to re-impress the Correlation on your mind ; thus, " Mother Day "—She will do what ? " Day " has no analytical connection with " Buy ; " so you must Correlate them together—

DAY...Day-book...Buyers..."BUY."

"Mother Day will Buy"—Buy what?

"BUY"...Cash...Cashmere..."SHAWL."

"Mother Day will buy any Shawl."

(a) To connect the first sentence with the second, Correlate the last prominent word in the first to the first prominent word in the second, thus:

SHAWL... Warmth...Affection LOVE.

Proceed in a similar way with the other sentences.

2. LOVE...Lovers' quarrels..."Picking a quarrel"...PICK UP...upstart
...parvenu...NEW...Old...Old age...Muffled voice...MUFF.

(b) MUFF... Fur ...RUSSIAN.

3. RUSSIAN...Sledge...Horse..."Gee"...JEER...Taunt...Excite...Stir
...MOVE...Motion...Emotional... Tender-hearted...Womanly...WO-
MAN.

(c) WOMAN... Thimble...Rig...Rigging...Ropes ...CABLES.

4. CABLES... Strong ... Sufficiently strong...ENOUGH..."More than
enough"...Sir Thomas More...UTOPIA.

(d) UTOPIA... Dreamland...Bed...Getting up ...GET.

5. GET...Get-penny...Penny Cake...CHEAP...Cheapside...Coffee-house
...HAM PIE...Hot mutton pie...Hot...Cool...COOLEY.

(e) COOLEY... Negro ...Slave.

6. SLAVE..."Greek Slave"...Knows Greek...KNOWS...Letters...Cap-
ital letters... Big...BIGGER...Smaller...Small boy...Copy book...
Imitate...APE.

(f) APE... Trick...Freak...Frequently ...RARELY.

7. RARELY...Seldom...Sell ... Licence ... Beer...HOP... Pole ... Mast...
Ship...Sea-sickness...SICK...Feeble...Lame...Lame foot...FOOT.

(g) FOOT... Ball...Gaiety ...CHEER.

8. CHEER...Christmas...Goose...Seasoning...SAGE...Wisdom...Folly...
FASHION...Shun...Danger...Safety...SAFE.

(h) SAFE... Sound...Noise...Crying ...BABY.

9. BABY...Bassinet...Net...FISH... Sunfish...Sunday...To-day...NOW
... Present time ... Men of the Time... Biographical sketches...
Sketches...VIEWS... Marine views...Land...Landing...WHARF.

(i) WHARF... Goods...Accounts...Half-yearly ...ANNUALLY.

10. ANNUALLY...Ann... MARY ANN ... Merry...Xmas...Mistletoe ...
Kissing...DID KISS...Steal a Kiss...Theft...Jail...JAY.

(k) JAY... Blue...Fly...Cab ...CABBY.

11. CABBY... Fair...Cattle...Sheep ... "Lost"...FOUND... "Crier"...
Scream... Rough Usage...ROUGH... Unpolished ... Uncivilized...
SAVAGE.

(l) SAVAGE... Wild beast...Roar...Bellow ...Low.

12. LOW...Low voice...Voiceless... DUMB...Dummy...Cards...KNAVE
...Nave... Church...Prophet...KNEW...News...Paper Note...MES-
SAGE...Proclamation...Bill...Showbill...SHOWY.

(m) SHOWY... Show..."Show cause"...Argue ...ARGUS.

13. ARGUS...Wakeful...Early up... UP... Sweep... Chimney...Grate
...FIRE...Sparks...Fly up...RUSHES.

(n) RUSHES... Rocket...Whiz...Buz ...BEE.

14. BEE... "Busy"...Willing...WILL... Temper ... Tempest...LOSE
LIFE IN...Death...Duel...ENMITY.

(o) ENMITY... Enemy...Trench ...CANAL.

15. CANAL...Can...MAY...April...April Showers...Water...WELL...
Spring... Rise up ... Apparition ... APPEAR ... Look ... Glance...
SWIFT.

(p) SWIFT... Current...To-day...Now ...NEVER.

In this manner memorise all the sentences from 1 to 15; and, when that is done *thoroughly*,

Correlate—(a) (b) &c.—the Suggestive Word at the end of one sentence to the Suggestive Word at the beginning of the next sentence, so that you can recite the entire 15 sentences in the exact order *rapidly*.

When you can do this with ease and certainty, instead of repeating the sentences, repeat aloud the figures which the sentences can be translated into, and you will thus know and be able to recite the **RATIO** of the **CIRCUMFERENCE** to the **DIAMETER**, expressed by the integer 3 and 148 decimals! After a little practice you can say them *backwards*. In repeating them either way never speak aloud the sentences or the Correlations, which must, of course, be perfectly memorised.

☞ When you can recite from Memory the entire 149 figures in the exact order and without mistake, you can hand ☞ not this paper—but the small paper that accompanies this one, and which contains *only the figures*—to any acquaintance and let him hear you recite them! Of course you will not give him the faintest idea of how it is done!! Recite the 149 figures at least 20 times.

Do this to as many persons as you can get the opportunity. No exercise is better than this, either for the Memory, or concentration, or confidence.

You will find it good practice to learn the other 56 sentences by your own Correlations, but you need not put off learning your next lesson until you have finished the memorising of these.

It will not be difficult to learn all the 71 sentences and to practice thinking through them and saying the figures. Doing this before other people, will cause amusement and astonishment, and will be an excellent exercise for cure of discontinuity and nervousness.

Mnemonical teachers sometimes print a large number of figures selected to suit a particular scheme, so that they are known at once by one who understands the arrangement, but no other set of figures can be learned in the same way. But this set of figures is one which actually occurs, not one arranged arbitrarily to suit a system, so of course any figures could be learned in the same way.

☞ Let me once more enjoin it upon the student to memorise at least the 15 sentences, exactly as I have directed, by repeating the parts correlated together each time, as I pointed out in the case of "Mother Day will buy any Shawl." Let him memorise my Correlations, if he cannot make any to send me. But, if he can, it is much better for him to make and memorise his own. Let him remember (1) wherever his natural memory fails, (2) to **CORRELATE**. In learning Conjugations, Declensions, Poetry, &c., &c., a pupil must *principally* rely upon the *increased memory power* which my System has given him, but, if in any case that fails, he must Correlate. Thus, a student, in learning the conjugation of the French Verb *Avoir*, could never remember what followed *Il*s in the third person

plural of the *Passé Défini*, i.e., *eurent*. I told him to Correlate them and memorise the Correlations, thus :—

ILS...Eels...Eel-pot...Water-pot...Ewer...EURENT.

Similarly, he would Correlate the principal parts of irregular Verbs, &c., &c.

*[It is often important to know the relation between a circle and its diameter, and to ascertain this, Euler constructed the following formula :—

$$\frac{\pi}{4} = 4 \text{ tangent }^{-1} \frac{1}{8} - \tan. ^{-1} \frac{1}{6} + \tan. ^{-1} \frac{1}{9}.$$

This, translated into popular language, would be as follows :—

π divided by four is equal to four times the inverse tangent of one-fifth, minus the inverse tangent of one-seventieth, plus the inverse tangent of one-ninety-ninth.

The Correlation of the above is as follows :—

π ...Pie... Carved... DIVIDED... Half...Quarter...Fourth...FOUR... Square...Equal Sides...EQUAL...Multiples of Equals...Twice as great...Three times... FOUR TIMES... Times...Leading Article...Prose... Verse...INVERSE...Inverted Order...Rank...Gentleman...Gent...TANGENT...Tan... Hide...Drum-head... Drum...Fife...ONE-FIFTH...Less than one...Less...MINUS...Mine... Descent...Ascent... Reverse of Descent...Reverse...Inverse... INVERSE TANGENT... Circle... Eternity...Time... Man's life... Three-score-and-ten...Seventy... ONE-SEVENTIETH... Fraction...Division...Addition...PLUS...Surplus...Too many...Many words...Conversation... Converse... INVERSE...TANGENT...Tangible...Evi-dence...Law...General rule...“Ninety-nine times out of a hundred” ONE-NINETY-NINTH.

Similarly, he would translate, and if his memory and attention are still weak, he would correlate and memorise any other mathematical formula, sentence, or proposition, the rule being to Correlate the Grammatical Subject to the Verb, and the Verb to the Predicate, and as many other words as the Pupil finds to be necessary. Of course he can often memorise a sentence by a few repetitions, but *he will soon forget it!!* What he learns by memorised correlations he will never forget. And, after a little practice, he can memorise a whole page by memorised correlations in half the time he could possibly memorise a fourth of a page by *rote*.

Dr. William Rutherford, F.R.A.S., of the Royal Military Academy, Woolwich, founded upon Euler's formula, a computation of the ratio of the circumference of a circle to its diameter. This—the diameter being 1—was calculated to 208 places of decimals. It appeared in the “Philosophical Transactions,” Part II, for 1841. It was found that the last 56 figures of the 208 were incorrect. In 1851, Dr. Rutherford corrected the error and continued the calculation to 350 decimals; and in March and April, 1853, Mr. William Shanks, of Houghton-le-Spring, Durham, founded on Machin's formula a calculation of the ratio carried on to 607 decimals. He published his calculations and their results in 1853, in a book entitled “Contributions to Mathematics.” Mr. John Morgan having found some errors, Mr. Shanks corrected them and car-

* Only students of mathematics need read the portion between brackets.

ried on the ratio to 707 decimals, in which form it was presented to the Royal Society in 1873, and is given (in figure-letters) on pages 121, 122, 123.]

MEMORISING PROSE AND POETRY.

FIRST STAGE FOR WEAK MEMORIES—THE ANALYTICO-SYNTHETIC METHOD.

[An enumeration of *all* the *propositions* to which a sentence is reducible, supplemented by memorised Correlations.]

SECOND STAGE FOR DEVELOPED MEMORIES.—THE INTERROGATIVE ANALYSIS.

[A two-fold enumeration of *all* the distinct ideas or *thoughts* of a sentence.]

In committing to memory rules of grammar, definitions in the sciences, &c., &c., learners often make a very grave and life-long mistake in trying to merely learn them by heart by endless repetitions. On the contrary, the Pupil should first grasp and realise the meaning and significance of what he wishes to have at command by converting SECOND-HAND KNOWLEDGE into FIRST-HAND KNOWLEDGE. The former is what other people tell us. It is hearsay. It is not the result of our own *observation* or *thinking*. If we study Botany, or any facts that are addressed to the senses, we must always convert the second-hand or hearsay knowledge into knowledge at first-hand by having our own *experience* in regard to it. We must *see* and *handle* the flowers, &c., and then we can have knowledge of them at first-hand. So with Chemistry, Anatomy, and other departments of learning where we can have, in regard to the subject-matter, the same kind of experience which the authors of the books have had. Unless we do this, we merely learn by heart without any necessary absorption or assimilation of the ideas or views inculcated. If we read over a sentence, every subsequent re-perusal of it is done without finding any novelty in it, and the inevitable result is that, in learning it by heart by means of endless repetition, the attention begins to *wander* after the first perusal!! Hence, those who learn by heart in the ordinary way become great mind-wanderers. This ruinous result would be avoided if they learn by intellectual absorption, or by converting the second-hand knowledge into first-hand knowledge. This can be done by analysing the sentence, or by reducing its meaning to its lowest terms or simplest form consistent with sense, and then adding on to this primitive form the successive modifiers of the Subject, Verb and Predicate, so as to restore by Synthesis its original shape, as was exemplified in the First Lesson and its Supplement. This should always be done in the case of unfamiliar abstract ideas, and in this way you make them your own. To illustrate: suppose the Student wishes to commit to memory Blackstone's definition of Municipal Law: "Municipal law is a rule of civil conduct prescribed by the supreme power in a State commanding what is right and prohibiting what is wrong." Suppose the Student has *carefully read over* his exposition of the different parts of this definition, and that he *understands* them. After this, he usually fixes the definition in his memory by endless repetition!! And if he memorises many passages in a similar manner, he

will become a great mind-wanderer! But rather than this, let him try my Method as stated above. He first says—(1) Municipal law is a rule. (2) Municipal law is a rule *about right and wrong*. (3) Municipal law is a rule *commanding what is right, and prohibiting what is wrong*. (4) Municipal law is a rule of *civil conduct* commanding what is right and prohibiting what is wrong. (5) Municipal law is a rule of civil conduct *prescribed*, commanding what is right and prohibiting what is wrong. (6) Municipal law is a rule of civil conduct prescribed by *the supreme power of a State* commanding what is right and prohibiting what is wrong. In this way his attention is enchained and interested; and, proceeding from the simple to the complex by successive additions, the mind has time to assimilate the ideas and an intellectual growth is the result, and the attention is strengthened and the memory most vividly impressed, and he will *retain* the comprehension of the definition as long as he lives. *If his memory and attention are both weak*, he may have to repeat the recital several times from memory [not by reading it over and over again], and he should then consolidate the definition by memorised Correlations, and similarly in other cases, he finally succeeds in making Blackstone's idea permanently his own. Again, a Pupil sends me the following definition of the First Law of Motion, taken from a recent work: "A body in a condition of relative rest continues in that state until some force acts upon it." Before seeking to understand the meaning of this sentence he must acquire a clear idea of the difference between absolute and relative rest. Then he proceeds—(1) Rest continues until some force acts upon it. (2) *Relative* rest continues until some force acts upon it. (3) *A body* at relative rest continues until some force acts upon it. (4) A body at relative rest continues *in that state* until some force acts upon it. (5) A body *in a condition* of relative rest continues in that state until some force acts upon it. Again, take the sentence "Mother Day will buy any shawl." You proceed thus—(1) Mother buys a shawl. (2) Mother buys *any* shawl. (3) Mother *will* buy any shawl. (4) Mother *Day* will buy any shawl. Again, take the sentence—"The active principle of the stomach is a hydrolytic ferment named pepsin." Presuming that the pupil has carefully ascertained the exact meaning of the words so that he knows precisely what the sentence means, he then goes on to fully assimilate that meaning thus: (1) The principle is a ferment. (2) The principle is a ferment *named pepsin*. (3) The *active* principle is a ferment named pepsin. (4) The active principle *of the stomach* is a ferment named pepsin. (5) The active principle of the stomach is a *hydrolytic* ferment named pepsin. In a similar manner the Pupil will proceed with any other sentence containing ideas that are unfamiliar to him or a sentence containing familiar ideas, but in an unfamiliar form; and let him note that, if only one or more points are new to him, he should manage to bring that in early in reconstructing the sentence, so as to have the benefit of the renewals of that idea as many times as possible in connection with what was before familiar. Suppose in the last sentence the idea *new* to him was that the ferment was *hydrolytic*; then he might proceed thus: (1) The principle is a ferment. (2) The principle is a *hydrolytic* ferment. (3) The principle is a hydrolytic ferment *named pepsin*. (4) The principle *of the stomach* is a hydrolytic ferment named pepsin. (5) The *active* principle of the stomach is a hydrolytic ferment named pepsin.

"Generally speaking, a person of unsound mind cannot make a conveyance of land."

(1) A person cannot make a conveyance. (2) A person cannot make a conveyance of land. (3) A person of unsound mind cannot make a conveyance of land. (4) Generally speaking, a person of unsound mind cannot make a conveyance of land.

"An agent selling property of his own to his principal must disclose the fact."

(1) An agent selling property. (2) An agent selling property to his principal. (3) An agent selling property of his own to his principal. (4) An agent selling property of his own to his principal must disclose the fact.

"No injustice is done to a person by an act to which he consents."

(1) Injustice is done. (2) No injustice is done. (3) No injustice is done by an act. (4) No injustice is done to a person by an act. (5) No injustice is done to a person by an act to which he consents.

"He who is a friend loves, but he who loves is not necessarily a friend."

(1) A friend loves. (2) He who is a friend loves. (3) He who is a friend loves, but he is a friend. (4) He who is a friend loves, but he who loves is a friend. (5) He who is a friend loves, but he who loves is not a friend. (6) He who is a friend loves, but he who loves is not necessarily a friend.

"The first principle and source of good writing is to think justly."

(1) The principle is to think. (2) The principle is to think justly. (3) The first principle is to think justly. (4) The first principle of writing is to think justly. (5) The first principle and source of writing is to think justly. (6) The first principle and source of good writing is to think justly.

"I thank God I am no more afraid to die; but as cheerfully put off my doublet at this time as ever I did when I went to bed."

(1) I am afraid. (2) I am afraid to die. (3) I am no more afraid to die. (4) I thank God I am no more afraid to die. (5) I thank God I am no more afraid to die; but put off my doublet. (6) I thank God I am no more afraid to die; but put off my doublet at this time. (7) I thank God I am no more afraid to die; but cheerfully put off my doublet at this time. (8) I thank God I am no more afraid to die; but as cheerfully put off my doublet at this time as when I went to bed. (9) I thank God I am no more afraid to die; but as cheerfully put off my doublet at this time as ever I did when I went to bed.

"A sense organ is a structure forming the peripheral* termination of a sensory nerve, and specially differentiated so as to react on a special kind of stimulus."

(1) An organ is a structure. (2) A sense organ is a structure. (3) A sense organ is a structure forming the termination of a nerve. (4) A sense organ is a structure forming the termination of a sensory nerve. (5) A sense organ is a structure forming the peripheral termination of a sensory nerve. (6) A sense organ is a structure forming the peripheral termination of a sensory nerve and differentiated to react. (7) A sense organ is a structure forming the peripheral termination of a sensory

* Peripheral means pertaining to or constituting the surface of a body [from Greek: *peri* around, and *phere* to bear.]

nerve and differentiated to react *on a stimulus*. (8) A sense organ is a structure forming the peripheral termination of a sensory nerve, and *specially* differentiated to react on a stimulus. (9) A sense organ is a structure forming the peripheral termination of a sensory nerve, and *specially* differentiated *so as* to react on a stimulus. (10) A sense organ is a structure forming the peripheral termination of a sensory nerve, and *specially* differentiated *so as* to react on a *kind of* stimulus. (11) A sense organ is a structure forming the peripheral termination of a sensory nerve, and *specially* differentiated *so as* to react on a *special* kind of stimulus.

"Sensation is a simple mental state resulting from the stimulation or excitation of the outer or peripheral extremity of an in-carrying or sensory nerve."

(1) Sensation is a state. (2) Sensation is a *mental* state. (3) Sensation is a *simple* mental state. (4) Sensation is a simple mental state resulting from *stimulation*. (5) Sensation is a simple mental state resulting from *the stimulation of a nerve*. (6) Sensation is a simple mental state resulting from the stimulation *or excitation* of a nerve. (7) Sensation is a simple mental state resulting from the stimulation or excitation of the *extremity* of a nerve. (8) Sensation is a simple mental state resulting from the stimulation or excitation of the extremity of a *sensory* nerve. (9) Sensation is a simple mental state resulting from the stimulation or excitation of the extremity of an *incarrying* or sensory nerve. (10) Sensation is a simple mental state resulting from the stimulation or excitation of the *outer* extremity of an incarrying or sensory nerve. (11) Sensation is a simple mental state resulting from the stimulation or excitation of an outer or *peripheral* extremity of an incarrying or sensory nerve.

"Αἰὲν ἀρίσταν καὶ ὑπερόχον ἔμμεναι ἄλλων."

(1) Αἰὲν ἀρίσταν. (2) Αἰὲν ἀρίσταν καὶ ἔμμεναι. (3) Αἰὲν ἀρίσταν καὶ ὑπερόχον ἔμμεναι. (4) Αἰὲν ἀρίσταν καὶ εὐπερόχον ἔμμεναι ἄλλων. (*Iliad*, VI., 208.)

"Jus accrescendi inter mercatores locum non habet."

(1) Jus accrescendi. (2) Jus accrescendi *non habet*. (3) Jus accrescendi *locum* non habet. (4) Jus accrescendi *inter mercatores* locum non habet.

Take the sentence "Any work that deserves thorough study, deserves the labour of making an Abstract; without which, indeed, the study is not thorough." (1) The study is thorough. (2) The study is not thorough. (3) *Without which, indeed*, the study is not thorough. (4) *Any work deserves the labour of making an Abstract*; without which, indeed, the study is not thorough. (5) Any work *that deserves thorough study*, deserves the labour of making an Abstract; without which, indeed, the study is not thorough. Again, "Wise men ne'er sit and wail their loss, but cheerly seek how to redress their harms." (1) Wise men sit and wail their loss. (2) Wise men *ne'er* sit and wail their loss. (3) Wise men *ne'er* sit and wail their loss, *but seek to redress their harms*. (4) Wise men *ne'er* sit and wail their loss, *but seek how to redress their harms*. (5) Wise men *ne'er* sit and wail their loss, *but cheerly* seek how to redress their harms. Again, "Sweet are the uses of Adversity, which, like the toad, ugly and venomous, wears yet a precious jewel in her head." (1) Sweet are the uses of Adversity. (2) Sweet are the uses of Adversity, *which wears a jewel*. (3) Sweet are

the uses of Adversity, which wears a jewel *in her head*. (4) Sweet are the uses of Adversity, which, *like a toad*, wears a jewel in her head. (5) Sweet are the uses of Adversity, which, like a toad, *ugly and venomous*, wears a jewel in her head. (6) Sweet are the uses of Adversity, which, like a toad, ugly and venomous, wears *yet* a jewel in her head. (7) Sweet are the uses of Adversity, which, like a toad, ugly and venomous, wears yet a *precious* jewel in her head. Again, "This England never did nor never shall lie at the proud foot of a conqueror." (1) England lies at foot of a conqueror. (2) England lies at the *proud* foot of a conqueror. (3) *This* England lies at the proud foot of a conqueror. (4) This England *never did* lie at the proud foot of a conqueror. (5) This England never did nor *never shall* lie at the proud foot of a conqueror.

INTERROGATIVE ANALYSIS.

An incomparable mode of securing the *comprehension* and retention of a sentence, is to analyse its successive parts by an exhaustive series of *questions and answers*. In this way, the Pupil transforms the Second-Hand Knowledge into First-Hand Knowledge. WHEN HIS MEMORY AND ATTENTION HAVE BEEN THOROUGHLY DEVELOPED AND STRENGTHENED BY HAVING MEMORISED A GOOD MANY SENTENCES, say from 100 to 200, by Interrogative Analysis, he will thereafter find it to be the most rapid and fascinating mode of *learning by heart*. In all respects, it is unlike learning by rote. In learning by rote, if the Pupil by accident really does absorb the meaning of a sentence, he attempts to do it by dealing with it at "one fell swoop;" but in using the method of Interrogative Analysis the Pupil must constantly *think*. To ask questions, he must *study* the meaning and purport of the sentence, and to frame his answers he must continue his scrutiny of the sentence with sleepless vigilance. Every *separate thought* in it is doubly grappled with—first in the question and next in the answer—and thus each idea is separately considered *twice* in relation to all the other parts of the sentence; and by recalling the *entire sentence* each time he answers a question, and by emphasising the special part that constitutes the reply [in print or writing by *italicising* it], he fixes permanently in mind not only all the ideas of the sentence but also its *exact verbal form*. Let the Pupil most *carefully* study the application of this Method to the sentence lately dealt with by the Analytico-Synthetic Method, to wit—"The active principle of the stomach is a hydrolytic * ferment named pepsin."

(1) What is the *active principle* of the stomach?—"The active principle of the stomach is a *hydrolytic ferment* named pepsin." (2) What is the *character* of the *ferment* which constitutes the active principle of the stomach?—"The active principle of the stomach is a *hydrolytic ferment* named pepsin." (3) What is the *nature* of that *watery substance* of the stomach which constitutes its active principle?—"The active principle of the stomach is a hydrolytic *ferment* named pepsin." (4) Of what organ in the human body is the hydrolytic ferment the active principle?—"The active principle of the *stomach* is a hydrolytic ferment named pepsin." (5) What is the *name* of the hydrolytic fer-

* Hydrolytic means pertaining to water [Greek, *hydor*, water; and *logos*, discourse.]

ment in the stomach which constitutes its active principle?—"The active principle of the stomach is a hydrolytic ferment named *pepsin*." (6) What is the *character* of that principle of the stomach which is known as the hydrolytic ferment named pepsin?—"The *active* principle of the stomach is a hydrolytic ferment named pepsin." (7) What *factor* in the operations of the stomach does the hydrolytic ferment named pepsin constitute?—"The *active principle* of the stomach is a hydrolytic ferment named pepsin."

But in the case of poor untrained memories, neither the Analytico-Synthetic Method nor the Method of Interrogative Analysis will suffice to retain the precise form of expression permanently. Memorised Correlations become necessary, and will continue to be necessary in learning by heart until the poor memory has been transformed into a good one. [*Although I must confess that hundreds possessing very weak memories have declared that they memorise prose and poetry with great rapidity by the Interrogative Method alone, and that they never forget it.*] After the above sentence has been comprehended by the foregoing Method the poor memory must usually resort to Memorised Correlations, perhaps in this way:—

ACTIVE...chief actor...warrior prince...PRINCIPLE...interest...rest
...rest for digestion...digestive organ...STOMACH...machination...machine...press...hydraulic press...HYDROLYTIC...droll...laughter...excitement...FERMENT...firmament...sun...heat...burning...pepper...PEPSIN.

As an example for the application of Interrogative Analysis to a long passage, I have selected Mr. G. R. Sims' skit on the London weather of the summer of 1886 [The *Referee*, August 22], a piece so recent as not likely to have been learned by any of my Pupils—

THE BAROMETER.—BY A LUNATIC LAUREATE.

I bought a barometer last July
To foretell the wet and foretell the dry,
And now I reside in my lonely hall
And watch the mercury rise and fall.
It will fall to "Stormy" and rise to "Wet"
And down to "Gales" I have known it to get,
But never one day since last July
Has it stood at "Fair" or at "Fine" or "Dry."

I have watched my barometer day and night,
But it won't go up to the wished-for height.
I tap at the glass, and I shake the stand,
And I twiddle away at the index hand;
I gave it a bang in an angry pet,
But still the mercury sticks at "Wet";
Then I tear my hair and I rave and cry,
"You beast! but I'll make you point to 'Dry.'"

I have lighted a fire around its base,
I've turpentine-plastered its gloomy face;
And leeches I've put on its blistered back,
And I've given it many a sounding whack.
It has gone to "Stormy," "Unsettled," "Snow,"
But to anything fair it declines to go;
In vain are the thousand tricks I try—
That blessed barometer won't say "Dry."

I have smashed the thing into fragments small,
 And the mercury's running about the hall;
 And the feet of the people passing by
 Are pierced with the pieces of glass that lie;
 And the elegant case of the instrument
 Over the wall of the garden went.
 I'll no barometer own, not I,
 That all the summer won't point to "Dry."

Who bought a barometer last July?—"I bought a barometer last July." What was my action in regard to a barometer last July?—"I bought a barometer last July." What did I buy last July?—"I bought a *barometer* last July." When did I buy a barometer?—"I bought a *barometer* last July." For what purpose did I buy the barometer last July?—"To foretell the *wet* and foretell the *dry*." To foretell what did I buy that barometer?—"To foretell the *wet* and foretell the *dry*." Is there any contrast between the objects or events to be foretold?—"To foretell the *wet* and foretell the *dry*." Now recapitulate from memory—

I bought a barometer last July
 To foretell the wet and foretell the dry.

But what am I doing *now*?—"And *now* I reside in my lonely hall." Who now resides in my lonely hall?—"And now I reside in my lonely hall." What am I now doing in my lonely hall?—"And now I *reside* in my lonely hall." Where do I now reside?—"And now I reside in my *lonely hall*." What kind of a hall is that in which I now reside?—"And now I reside in my *lonely hall*." What lonely place is that in which I now reside?—"And now I reside in my *lonely hall*." What else am I now doing in my lonely hall?—"And watch the mercury rise and fall." And how is my attention engaged?—"And watch the mercury rise and fall." What am I watching?—"And watch the mercury rise and fall." What does the mercury do?—"And watch the mercury *rise* and *fall*." Is there any dissimilarity in the movements of the mercury?—"And watch the mercury *rise* and *fall*." Now recapitulate from memory—

I bought a barometer last July
 To foretell the wet and foretell the dry,
 And now I reside in my lonely hall
 And watch the mercury rise and fall.

To what places will the mercury go?—"It will fall to '*Stormy*' and rise to '*Wet*.'" What will fall to "*Stormy*" and rise to "*Wet*?"—"It will fall to '*Stormy*' and rise to '*Wet*.'" Is the action of the mercury different in the two cases?—"It will *fall* to '*Stormy*' and *rise* to '*Wet*.'" If it rises to "*Wet*," will it then descend to some other place?—"And *down* to '*Gales*' I have known it to get." To what place will the mercury descend?—"And down to '*Gales*' I have known it to get." And what have I known about the movement of the mercury?—"And down to '*Gales*' I have known it to *get*." Now recapitulate—

I bought a barometer last July
 To foretell the wet and foretell the dry,
 And now I reside in my lonely hall
 And watch the mercury rise and fall.
 It will fall to "*Stormy*" and rise to "*Wet*,"
 And down to "*Gales*" I have known it to get.

How many times during one day since last July has the mercury stood at "Fair" or at "Fine" or "Dry"?—"But *never* one day since last July has it stood at 'Fair' or at 'Fine' or 'Dry.' " For how long did the mercury not stand at "Fair" or at "Fine" or "Dry" since last July?—"But *never one day* since last July has it stood at 'Fair' or at 'Fine' or 'Dry.'" Since when has the mercury never stood for one day at "Fair" or at "Fine" or "Dry"?—"But *never one day* since *last July* has it stood at 'Fair' or at 'Fine' or 'Dry.'" How has the mercury never been for one day since last July relative to "Fair" or "Fine" or "Dry"?—"But *never one day* since last July *has it stood* at 'Fair' or at 'Fine' or 'Dry.'" In which one of three positions has the mercury never stood for one day since last July?—"But *never one day* since last July has it stood at 'Fair' or at 'Fine' or 'Dry.'" The transition from one verse to the next is easily made. For instance: How do I *know* that the barometer has never for one day since last July stood at "Fair" or at "Fine" or "Dry"? Answer: [Because] "*I have watched my barometer day and night.*" Who has watched my barometer "day and night"?—"I have watched my barometer day and night." How have I *busied* myself day and night?—"I *have watched* my barometer day and night." What have I watched day and night?—"I have watched *my barometer day and night*"!! During what times have I watched my barometer?—"I have watched my barometer *day and night.*" Do I realise my hopes in regard to the barometer rising?—"But it *won't go up to the wished-for height.*" What is it that won't go up to the wished-for height?—"But *it* (the mercury) won't go up to the wished-for height." Where will it not go?—"But it *won't go up to the wished-for height.*" Is the height to which it will not go a matter of desire or aversion?—"But it won't go up to the *wished-for height.*" To what position will it not go?—"But it won't go up to the wished-for height." In my disappointment what do I do?—"I *tap at the glass* and I *shake the stand.*" Who taps at the glass and shakes the stand?—"I tap at the glass and I shake the stand." What is it I tap at and what do I shake?—"I tap at the *glass* and I shake the *stand.*" What do I do to the glass and what to the stand?—"I *tap* at the glass and I *shake* the stand." Do I play with the index hand in a light and tremulous manner?—"And I *twiddle away* at the index hand." At what do I twiddle away?—"And I twiddle away at the *index hand.*" Not confining myself to the hand of the barometer, but thinking of all its intractabilities, do I get excited?—"I give it a bang in an angry pet." To what do I give a bang?—"I give it a bang in an angry pet." What do I give it?—"I give it a *bang* in an angry pet." In what mood do I give it a bang?—"I give it a bang in an *angry pet.*" In what kind of a fit of peevishness do I give it a bang?—"I give it a bang in an *angry pet.*" Does this bang make the mercury move up?—"But *still the mercury sticks at 'Wet.'*" Does the mercury now stick at "Wet"?—"But *still the mercury sticks at 'Wet.'*" At what place does the mercury stick?—"But *still the mercury sticks at 'Wet.'*" How is the mercury held at "Wet"?—"But *still the mercury sticks at 'Wet.'*" After all these humiliating defeats, do I become frantic?—"Then I *tear my hair* and I rave and cry, 'You beast! but I'll make you point to 'Dry'!' How do I exhibit my rage?—"Then I *tear my hair, and I rave and cry* 'You beast! but I'll make you point to 'Dry'!' What vocal exclamation ensues?—"Then I *tear*

my hair, and I rave and cry 'You beast! but I'll make you point to 'Dry'!' Do I personify the barometer, and, if so, what term do I apply to it?—"Then I tear my hair and I rave and cry 'You beast! but I'll make you point to 'Dry'!' Am I still resolved to succeed?—"Then I tear my hair and I rave and cry 'You beast! but I'll make you point to 'Dry'!' To what point am I determined to make it go?—"Then I tear my hair and I rave and cry 'You beast! but I'll make you point to 'Dry'!' What have I done to carry out my unflinching resolve?—"I have lighted a fire around its 'base,' &c., &c. Similarly deal with the two remaining verses, and send your work to me for criticism.

"An infant cannot exercise a power of appointment over real property."

(1) An infant cannot exercise. (2) An infant cannot exercise a power. (3) An infant cannot exercise a power of appointment. (4) An infant cannot exercise a power of appointment over property. (5) An infant cannot exercise a power of appointment over real property.

The same Interrogatively Analysed.

(1) Who cannot exercise a power of appointment over real property?—"An infant cannot exercise a power of appointment over real property."

(2) Can an infant exercise a power of appointment over real property?—"An infant cannot exercise a power of appointment over real property."

(3) What kind of act in reference to appointments over real property cannot an infant perform?—"An infant cannot exercise a power of appointment over real property."

(4) What kind of power cannot an infant exercise over real property?—"An infant cannot exercise a power of appointment over real property."

(5) What kind of property is that over which an infant cannot exercise a power of appointment?—"An infant cannot exercise a power of appointment over real property."

There are several other modes of working out the Interrogative Analysis where the Comprehension is the main thing and the Retention of the *exact expression* is not insisted on. One of these is given below. Let the Pupil realise that by the Interrogative Analysis he cements new ideas on to old ones—that by exercising his own mind on the whole and all the parts of novel statements he manages to cause the unhabitual ideas to become, as it were, intercalated with his familiar knowledge, and that, in this assimilating manner, facts and principles hitherto foreign and strange to him, become familiar and entirely his own, new ideas become the same as if he had *originated* them.

"The intermarriage of near relatives has been universally believed to entail degeneration upon the offspring, and the act has been condemned."

(1) What has been condemned?—"The intermarriage of near relatives." (2) Why has it been condemned?—"Because it has been believed to entail degeneration." (3) Degeneration upon whom?—"Upon the offspring." (4) Has the opinion been general?—"It has been universal." (5) What has been universally believed?—"That the intermarriage of near relatives entails degeneration upon the offspring."

"Hibernation is the term applied by naturalists to express a peculiar condition of sleep in which certain animals (chiefly Chiroptera and Rodentia) pass the winter season."

(1) What is Hibernation?—"It is a peculiar condition of sleep." (2) Who so applied it?—"Naturalists." (3) Do they so apply it to particular animals?—"Chiroptera and Rodentia." (4) When is this peculiar condition of sleep shown?—"In the winter." (5) What does it do for these animals?—"It enables them to pass the winter season." What then is Hibernation?—"Hibernation is the term applied by naturalists to express the peculiar condition of sleep in which certain animals (chiefly Chiroptera and Rodentia) pass the winter season."

"*Histology* is the science which classifies and describes the structural or morphological elements which exist in the solids and fluids of organized bodies."

(1) What is Histology?—"Histology is the science of organized bodies." (2) Of what is it the science?—"It is the science which classifies and describes the structural elements of organized bodies." (3) What other term is associated with *Structural*?—"Morphological." (4) Where do these elements exist [structural or morphological]?—"They exist in the solids and fluids of organized bodies." (5) What does Histology do?—"It classifies and describes the structural and morphological elements which exist in the solids and fluids of organized bodies."

"*Homology*, in Anatomy, is the term now used to indicate structural correspondence, while the term *Analogy* is employed to indicate functional resemblance."

(1) In what science is Homology used?—"In Anatomy." (2) What does it indicate?—"Structural correspondence." (3) What is meant by structural correspondence?—"It means similarity of relation in organs of animals as regards general structure or type." (4) In what does it differ from Analogy?—"Analogy indicates 'Functional Resemblance,' while Homology indicates structural correspondence." (5) What is functional resemblance?—"It means a *resemblance* in the *actions* performed by different organs in the same animal, or by similar or unlike organs in different animals." (6) How is Homology used in Anatomy?—"Homology, in Anatomy, is the term now used to indicate structural correspondence." (7) How is Analogy used?—"The term Analogy is employed to indicate functional resemblance."

Remarks.—Reading over my Analysis merely gives the Pupil an idea of the application of the Interrogative Method; but if he makes *his own* Analysis of these verses, or of others, or of a passage of prose, and then at least once or twice per day for *two weeks* recites from *memory*, first his Analysis and immediately after the passage without the Analysis, but exactly as it was printed or written, he will make the method so familiar, that hereafter he can apply it with so much *rapidity* and *certainly*, that he can usually memorise a passage of prose or poetry by a single painstaking Interrogative perusal. And when a child has learned my System, he should never be allowed to learn anything by mere rote. If he is required at first to *write out* his Analyses of all he learns, he will soon become so enamoured of the Method that he will always use it from choice, and always with the best results, and thus avoid the ruinous habit of Mind-wandering, and at the same time become a prodigy of quick and never-failing acquisition. Mental operations, in a general way, can be reduced to three successive stages: Sensations, Perceptions, and Reason. (a) **SENSATIONS**, where impressions reach the brain through the Touch, Taste, Smell, Sight, or Hearing—the last two being the most vivid. As learning by rote is little more than learning a *succession of sights* [written or printed words], or *sounds* [spoken words], there is mainly involved only Sensations, with scarcely any intellectual assimilation of ideas; and the reason that we learn a passage in our own familiar language more easily than we learn a passage of equal length in an unfamiliar language is obvious—in the former case the sounds of the words are familiar, and only the succession of them has to be committed to memory; but in the latter case we must memorise not only the unfamiliar sounds, but also the succession of them. Many, when children, have learned passages of Latin and Greek which they translated; in later life they can often repeat the passages, but they cannot translate them!!! This proves conclusively that when we learn by heart by means of mere repetitions, the mere sensations of sight and sound have alone been permanently impressed on the mind. In learning by rote, the literal words and exact expression are everything and the sense nothing, or next to nothing; but in learning by my Method, the sense is everything, but it is so absorbed and assimilated that the exact expression is necessarily carried with it. (b) **PERCEPTION**, or the Relation among Sensations, is developed by the action of the mind upon the raw material furnished by Sensation. (c) **REASON**, or the Relation among Relations, is a mental action still further removed from Sensation. Thus we see that where *ideas* or *thoughts* are expressed in a sentence, and no sentence is without them; learning by rote does not absorb them. This method of endless repetition may temporarily memorise the exact form of expression, but it scarcely ever assimilates any of the ideas. But Interrogative Analysis compels the Pupil to absorb all the ideas, and thus he receives a vivid **FIRST IMPRESSION** of all the operations of Perception and Reason, in regard to both of which learning by rote gives no first impression at all. Its superiority to rote-learning is obvious from another point of view. Learning by rote requires constant reviews, or the acquisition is lost forever; but after the Memory and Attention have been thoroughly developed, by having made and memorised many Correlations, what is then learned by Interrogative Analysis is permanently retained without review or any more perusals. Again: learning by rote requires a *long time*, and the method promotes mind-wandering, but learning by Interrogative Analysis is rapidly done after the first trials and a little preliminary practice, and it fortifies and strengthens both functions of the Attention to a most surprising degree, and after a time the Pupil can, with practical instantaneousness, comprehend the most complex and unfamiliar statements, and quickly memorise them.

I have received numerous Testimonials from Actors and Clergymen, stating that this Method had been a revelation to them, for it ensured their rapid memorisation of their parts or sermons and a clear insight into the meaning of all they learned; from Lawyers, averring that this Method had taught them how to examine witnesses, and draw from them all the pertinent facts they knew, and to arrive at every possible construction of any section of a Statute; from Grammarians, stating that the practice of this Method had taught them to realise the functions of the Parts of speech more clearly than they had ever known them before; from Frivolous People who had never learned anything before, declaring that this Method had taught them to *think*—and from all alike the statement comes: that this Method secures Comprehension and Retention agreeably, no matter what the prose or poetry may be, and in very much less time than those results could be secured by any method that they had ever known before learning my System. I will only add, as an encouragement to the weakest-minded, that I discovered the Interrogative Method in teaching an idiot to recite from memory the Lord's Prayer when all other devices had failed.

Let the Pupil send me at least five sentences of his own selection, dealt with by *him* according to Interrogative Analysis.

SURPRISING FIGURE MEMORY.

The following exercise is intended for all Pupils, but especially for those who wish to deserve a place on the "Loisettian Roll of Honour." Any man may much astonish his friends if he can say "write down three figures," and then "three more," and so on until ten sets are written down; and then at once repeat the figures, both in threes and singly, backwards and forwards. That you may do when you can quickly turn figures into words together. Always manage that some time shall elapse between writing down the different sets of figures, so that you can translate each set into words and correlate the words together as fast as you make them, and then you can recite the figures without delay! This you can do by asking different persons to write down a set, &c., &c. Subjoined is a series of twenty figure-words connected by Synthesis and Analysis. Memorise the correlations, and then exercise yourself in thinking the figure-words and saying the figures backwards and forwards.

DAMAGE....hurt....frightened....white....LILIES....flowers....Covent
Garden....MART....shop....photographer's shop....CAMERA....camel hair
....BALD....SHAVEN....red beard....RUFUS....shot in a wood....hide in a
wood....AMBUSH....cocoa tree....chocolate....VANILLA....confections....
cooked....dressed....DRESS....ROBED....coronation robes....king....VIKING
....TALKING....talk....DIALOGUE....after dinner....FRUIT....sweets....BABY
BOY....clothe....CLOVE....cloven....MITRE....mighty....DEVIL....imp....
IMPISH....demon....ANGEL.

136,	550,	341,	734,	951,	682,	480,
896,	825,	140,	491,	877,	177,	157,
841,	999,	758,	314,	185,	396,	265.

136550341734951682480396825140491877177157841999758314185396265.

Now write down thirty other figures, three figures at a time, translate each set into a word or phrase, and then connect by Correlations of your own: memorise, and repeat the figures both ways. This preliminary practice will prepare you to ask your friends to write down 10 or even 20 or more sets of three figures each for you to repeat forwards and backwards from memory!!

PHARMACEUTICAL PREPARATIONS.

The following examples are intended to show the Pharmaceutical Student how to memorise the preparations of the British Pharmacopœia. The proportion of the active ingredient in the preparation is indicated by a number-word; the nature of the preparation (as powder, tincture, infusion, &c.) to which this word refers, is indicated by the initial letter of the number-word, according to the scheme given below. If the student wishes to memorise merely the proportions of the active ingredients, he will proceed as in the case of the waters, mixtures, decoctions, &c. If he wishes to memorise not only the proportion, but the time taken in making the preparation, he will proceed as in the case of the Infusions. The same model will show him how to memorise additional facts, exceptional cases, &c. If, however, he desires to remember every preparation of a given kind in the Pharmacopœia, he will take as his model the scheme of the Confections. When it is found how easily these figures can be memorised by my System, and when it is remembered that the only other way in which such facts can be memorised, is by sheer brute force of endless repetition, the Student will be in a position to appreciate the value of my System.

The nature of the preparation is indicated by the initial letter of the number-word, as follows:

WATERS	W.	LIQUORS	L.
CONFECTIONS	K sound.	OINTMENTS	Sh, J or G.
DECOCTIONS	D.	MIXTURES	M.
PLASTERS	Pl.	PILLS (bolus)	B.
ENEMAS	N.	POWDERS	P.
TINCTURES (with rectified Spirit) T.	T.	SPIRITS	Sp.
“ (with proof Spirit) St.	St.	SYRUPS	S.
GLYCERINES	Gl.	WINES	V.
INFUSIONS	F.	LINIMENTS (rubbed)	R.

WATERS—W.

DILL ...dilatatory.. lazy... bed... garden...	WEEDS	10
CAMPHOR ...camphor pilules... cold.. wipe nose...	Wipe shoes	960
CARRAWAY ...carry away... rubbish...	Weeds	10
FENNEL ...fence.. hedge.. box-edging.. garden...	Weeds	10
CINNAMOM ...cinder... fire... water...	Wave	8
CHERRY LAUREL...cherry tree... timber... sawyer...	Wood-sawyer	1½
PEPPERMINT } ...mint... green peas... duck... web feet		
SPEARMINT } ...web... Weave loom		858

1 in

PIMENTO ...allspice... spliced... married...	Wedded son	11½
ROSE ...white rose...	White	1
ELDERFLOWER	White	1
CHLOROFORM ...operation... painful...	Winces	200

DECOCTIONS—D.

	Decoctions...	1 in
ALOEES ...alleys... narrow street... blocked...	Detains	120
ICELAND MOSS ...ice... snow... ball...	Dance	20

CINCHONA	...sink...stone...hardware...dough...	Dotage	16
POMEGRANATE	...hard stone...date stone...	Dates	10
&c.		&c.	

PLASTERS—PL.

AMMONIACUM AND MERCURY	...amateur...match...	1 in
	plowing match...	Plow a hill 5
BELLADONNA	...belle...beauty...	Plain 2
CALEFACIENS	...warmth...fleece...pure wool...	Plain wool 25
CANTHARIDES	...Spanish fly...Spain. Malaga. raisins.	Plum 3
BROWN SOAP	...Pears' soap...Erasmus Wilson. Play..Will's son	5½
&c.		&c.

ENEMAS—N.

	Mass...maize...corn...grain...	{ Grains in each Enema.
ALOES	...wean...baby...	Nurse 40
ASSAFETIDA	...devil's dung...Satan...Enemy of mankind...	Enemies 30
SULPHATE OF MAGNESIA	...Epsom salts...Epsom...	
	grand stand...aristocracy...No roughs	480
ruffian...murder...RUFUS (480)...	red hair...brunette... olive brown...	OLIVE OIL *
OPIUM	...poison...kill...	Enemies 30
	thirty...dirty...wash...water...Drop [thirty drops of Tinct. Opii.]	
&c.		&c.

INFUSIONS.

All Infusions are made with boiling water, except Chiretta and Cusparia, which are made with water at 120°; and Calumba and Quassia, which are made with cold water. The time required to make the infusion is given in minutes.

Infusion...	boiling water...egg-boiler...three minutes	Minutes.
	cold water...cold in the back...lumbago...	CALUMBA
	lumberroom...no room...crush...squash...	QUASSIA
	ice { less dense }	
	ice { thick ice }	
	dense (120°)...dentist...bicuspid...	CUSPARIA
	pariah...India...Indian Bitters...	CHIRETTA

INFUSIONS—F. Strength. Time.

CHAMOMILE	...camp...drill...	Fence 1 in 20...duel 15'
ORANGE PEEL	...peal...bell wire...wire	
	fence... " 1 " 20...duel 15'	
COMPOUND ORANGE	Blenheim orange..apple	
	...pine apple...pine...Firs 1 " 40...tail 15'	
BUCHU	...ewe...sheep...goats...	
	Gruyère cheese...Fancy 1 " 20...cheese 60'	
&c.		&c. &c.

* Each Enema contains 1 oz. of olive oil.

MIXTURES—M.			Grs. in 1 oz.
AMMONIACUM	...ammonia...smelling-bottle...lady...	Madam	13
ALMONDS	...almond cake...wedding cake...match.	Matches	60
CREASOTE	...sickness...sea sickness...ship...	Mate	1
CHALK	...prepared chalk...face-powder...lady..	Madam	13
COMPOUND IRON	...iron & wood...iron clad...man of war...	Man a sail	2-5
GUAIAIACUM	...ache...headache...dirty head ...matted hair...	Matted	11
SCAMMONY	... ..	Money	2
COMPOUND SENNA	...biliousness...	Mopish	96
BRANDY	...Brand's beef...no fat...Greece...	Matapan	192
CONFECTIONS—K or C ^{hard} .			
OPIUM	...laudanum...toothache...	Carious	} 1 in 40
poppy	carious...tooth...molar...grind... (powdered opium 1 in 40)	powder	
PEPPER	...cayenne...	Cadiz	
piper			
pips			
HIPS	...hairy seeds...hair...	Comb	" 3
ROSES	...rosy cheeked...apple...	Core	" 4
wild rose			
bramble			
scramble			
SCAMMONY	...money-bank...Bangkok...cock'scomb...	Comb	1 in 3
common purgative			
SENNA	...senna tea...tea-caddy...	Cadet	" 11
brimstone and treacle			
SULPHUR	...furious...insult...	" you Coon, sir "	" 2½
hell fire			
punishment			
guilt			
turpitude			
TURPENTINE	...Dick Turpin...pistol...rifle...	Corps	" 74

POISONS AND ANTIDOTES.

Oil, milk, or any other fatty mucilaginous substances are used to protect the coats of the stomach against the operation of oil of vitriol and other acid and corrosive poisons:—*Acid*....*curd*....*curdled milk*....*milk*....*butter*....*melted butter*....*oil*.

Soap and Sulphide of Potassium are antidotes against arsenic and other metallic poisons:—*Metallic*....*lick*....*cat-lick*....*wash*....*soap*....*potash-soap*....*potassium*....*sulphide of potassium*.

Narcotic poisons are neutralized by vinegar:—*Narcotics*....*clock ticks*....*time*....*age*....*vintage*....*vinegar*.

Prussic acid is neutralized by alkalies and freshly precipitated oxide of iron:—*Prussic acid*....*sick*....*lie down*....*alkali*....*lie on the side*....*oxide of iron*.

Wine, brandy, coffee and camphor, are used to rouse those who have taken laudanum or any other preparation of opium:—*Opium*....*opium-eater*....*intemperate*....*brandy*....*wine*....*beverage*....*coffee*....*cough*....*cold*....*camphorated spirit*....*camphor*.

Mucilage, camphor and oil, neutralize cantharides:—*Cantharides*....*hair-grower*....*bald*....*age*....*mucilage*....*mew*....*cat*....*fur*....*camphor*....*comfort*....*ease*....*smooth*....*running*....*oil*.

Ten drops of ammonia in a glass of sugared water will sober a tipsy man:—*Drunk*....*alcohol*....*volatile spirits*....*volatile alkali*....*ammonia*....*to moan*....*to sigh* (10 drops)....*pathos*....*sweet tears*....*sugared water*.

In the case of every date-word that I give, as well as in regard to all my Correlations, I earnestly advise the student to make his own, and memorise them thoroughly, and send them to me for criticism, using mine as examples or illustrations only.

The most abstract definition ever drawn up, is the following one of Evolution, by Herbert Spencer. Let the Pupil, as an optional exercise, send me his Correlations or Interrogative Analysis for cementing the different parts of it together, and also for memorising the caricature, and the citations from Mr. Spencer and Mr. Ruskin.

"Evolution is an integration of matter and concomitant dissipation of motion, during which the matter passes from an indefinite, incoherent homogeneity, to a definite, coherent heterogeneity, and during which the retained motion undergoes a parallel transformation."

[MR. KIRKMAN'S Travesty of the above.]

"Evolution is a change from a nohowish, untalkaboutable, allalike-ness, to a somehowish and in-general talkaboutable not-all-alikeness by continuous somethingelseifications, and sticktogetherations."


"Amid the mysteries which become the more mysterious the more they are thought about, there will remain the one absolute certainty, that he is ever in presence of an Infinite and Eternal Energy, from which all things proceed."—*Herbert Spencer*.

The following trenchant lines contain Mr. Ruskin's opinion concerning thoughtless students of evolution:—"It is every man's duty to know what he is, and not to think of the

embryo he was, or the skeleton that he shall be. Darwin has a mortal fascination for all vainly curious and idly speculative persons, and has collected, in the train of him, every impudent imbecility in Europe, like a dim comet wagging its useless tail of phosphorescent nothing across the steadfast stars."

[REMARKS.—(1) Evolution does not attempt to account for the Origin of the Universe, nor offer any hint as to how it is upheld and continued in existence from age to age. (2) If, as is claimed, the above formula expresses the *modus operandi* of all astronomic, geologic, biologic, psychologic and sociologic changes in their general course, it must be obvious that such multiform and widely unlike changes could not have taken place in conformity to such a strict formula or Law, by mere *accident*!!! or even a concurrence of accidents!! This inference is very different from the ordinary argument from Adaptation. That applies to separate, individual cases. But this is universal, and it is exhaustive too. It starts with origins (which are assumed), and follows the history of everything—worlds, inorganic matter, organisms of all kinds, and mind too—and it proclaims that Evolution has guided ceaselessly all their operations from the first without exception!! Hence, if Evolution were established it would itself furnish a scientific proof of irrefutable conclusiveness that the Universe and its Laws have had a Supreme Designer. (3) Meanwhile it is clear that, in its highest sense, Evolution has, as Mr. Gladstone claims, been believed in for centuries, and it certainly is exemplified in the cases of three speculative writers of this century. John Stuart Mill, an Agnostic nearly all his life, finally *evolved* into a maintainer of Theism, as appears from his three celebrated Essays. Mr. John Fiske, the most capable disciple of Mr. Spencer, has already *evolved* into a Philosophical Theist!! See his book, "The Idea of God, as affected by MODERN KNOWLEDGE." Mr. Spencer, after relying for years upon a blank, colourless, incomprehensible UNKNOWABLE, has at length *evolved* into a believer in "the one absolute certainty of an Infinite and eternal ENERGY, from which all things proceed!!" There is more in this than might at first appear. Mr. Spencer has progressed (a) from the conception of an uncharacterisable, unanalysable, UNKNOWABLE, to the very definite idea of ENERGY. (b) An Energy that is Infinite and Eternal. (c) An Energy from which all things proceed, as their Creator or Origin. (d) An INTELLIGENT Energy, if Evolution be true, since, according to that doctrine, everything whatsoever does not obey the impulse of Chance or Blind Fate, but is always and invariably DEVELOPING in conformity to the specific Mode and Direction of Evolution!!! Should he fortunately survive a few years longer, may we not reasonably hope that this modern Pantheist will still further evolve, and at last become a believer in the Infinite and Eternal God?]

The foregoing reference is justified here, because if, as is sometimes rashly claimed, Evolution dethrones God, it would deprive Him of the glory of having created Memory—the most precious gift to man—without which Life would only consist of present sensations, and be devoid of any enjoyment in prospect or retrospect—with no materials on which imagination, Conscience, or Reason could operate, and without which Progress and Civilization were impossible.

 **NOTICE.**—It is an achievement, grand in its results, to master my System in its character as a Device for Memorising any facts whatsoever—but it is a grander achievement to master it as a System of Memory-TRAINING, so that the Natural Memory becomes so strong that it no longer requires the aid of my System as a Device for Memorising. In this case, facts are united in the Memory by an Instantaneous Gordian Knot. To help secure this object, I recommend the Pupil, before commencing this Lesson, to go over all the previous exercises *again*, if he has not already memorised them *thoroughly and in the exact manner* required by my instructions.

PART V.

THE INSTANTANEOUS GORDIAN KNOT.

By Gordian Knot I do not mean the application of my System to numbers or geography, or history, or any of the sciences in particular—but I mean by Gordian Knot to express the **RESULT** of my System of Memory-training. This result, if my directions are thoroughly attended to, is such a strengthening of the **NATURAL MEMORY** that facts are held by it as firmly as if tied with the knot of Gordius—held *without* the use of my System as a *device* for memorising. In this lesson I aid the pupil by further exercises to continue his memory-training, and I suggest further methods to help him do this rapidly and usefully.

IN ANSWERS TO EVER-RECURRING QUESTIONS it is stated that my System has been christened by my Pupils “Instantaneous Memory” from the **RAPIDITY** with which whatever has been learned by it is **RECALLED**. I can communicate in a personal interview, in the space of one hour only, my entire Unique Theory of Physiological Analysis and Synthesis—together with the two grand features of my Original System of Memory-Training, whereby the First Impression is in all cases made most *vivid*, and its subsequent Revival made sure and immediate, by **MEMORISING** examples of Analysis, and by making and **MEMORISING** Correlations. After the Pupil has thus learned the complete Theory of my System, he still needs to have a *good deal of practice* to acquire the dexterity in its use which practice alone gives. Of course Pupils who learn my System by Correspondence have to Study my Instruction Papers without any personal tuition, and although it is no tedious process to acquire my System in this way, it is not learned so quickly as where a personal exposition is given; but it is still thoroughly acquired if genuinely studied; and, in fact, many of my best Pupils are persons whom I have never seen.

Now suppose a Pupil has correlated one “extreme” to “another extreme” and has followed my invariable requirement in *memorising the Correlation*, and he now wishes to recall the second “extreme,” what takes place? Why, the *moment* he *thinks* of the first “extreme” the second “extreme” *instantly* occurs to mind. There is no delay—no pause—no summoning up of a story, and separating it into parts, and making a vain effort perhaps to find out which was the “other extreme;” no attempt at recalling a mental picture, two-thirds of which has vanished from the memory while the remaining third only serves

to put you on a false scent. The *application* of my Method instantaneously *recalls* the fact which the Correlation had cemented to the first extreme. If any hesitation ever occurs, it is sure proof that the *Correlation was not memorised* in the *thorough manner* always insisted upon by my System.

There is another result which, after the Lessons are finished, all my faithful Pupils will be sure to find out in their future use of the System. I have just adverted to the instantaneous RECALL of any fact properly fixed in the mind by my System. I now allude to the MAKING of the Correlation in the first instance.

I.—The more Correlations the Pupil makes, the more easy the making of them insensibly becomes. Ninety-nine persons out of a hundred are satisfied with making them with constantly increasing rapidity as time goes on and experience accumulates. But many prefer to make them slowly and thoughtfully, and they refuse to take any steps to become able to make them rapidly. Such persons acquire the full power of my System, except in the matter of *time*.

But, if they have occasion to make hundreds of thousands of Correlations in a brief period in order to remember great masses of facts, they can, if they follow my directions, save much time.

II.—The careful making of 5000 Correlations does not so much contribute to the practically *instantaneous forging* of the memory-chain as does the *making* and thorough *memorising* of 50.—Nor is this all—

III.—Hitherto, as the Pupil has had quite enough to do to acquire the method of making Correlations, I have simply enjoined the memorising of every one he makes. But the time has come to speak of the proper *manner* of memorising them. The quick recital of the intermediates of every Correlation both ways, whilst learning them by heart, helps to impart the power to *make* new intermediates instantly. Hereafter this should always be done by all who would acquire the full power of my System. *Rapid repeating of memory-intermediates contributes to rapid making of them.* The time spent in attaining the ability of instantly manufacturing memory-intermediates differs in the case of different individuals, according to temperament, and the *painstaking* bestowed upon *always rapidly memorising the Correlations*.

IV. Those who may have found difficulty in making Correlations, can soon overcome this difficulty by making a Correlator of 25 words connected by In., Ex. and Con., *every day* for two weeks—*analysing* each and *memorising* it—always connecting the first word in the second-day series to the last word in the first series by analysis, so that in 12 days he has made a Correlator of 300 words constituting an unbroken chain, each word being united to the next either by In., Ex. or Con., and, the whole *memorised*, he will thenceforth be able to make Correlations easily and rapidly.

MEMORY ALMANAC.

Let the Pupil memorise the sentences that spell the Saturdays of the months of 1886, and he can adapt them to other years.

When the first Saturday falls on the *first* day of the month, the sentence "Do have dull Nanny Nebo" will apply, except to February

when it has only 28 days ; * in this latter case, the last word *Nebo* must be left out. †

Does the sentence contain an entreaty ?—" *Do* have dull Nanny Nebo." What is the point of the request ?—" *Do have* dull Nanny Nebo." What is the intellectual character of Miss Nanny Nebo ?—" *Do have dull Nanny Nebo.*" What is Miss Nebo's Christian name ?—" *Do have dull Nanny Nebo.*" What is the surname to which Nanny belongs ?—" *Do have dull Nanny Nebo.*"

When the first Saturday falls on the *second* of the month, the sentence "Now, boy, touch a numb mouse," always applies. [When the second day of February is its first Saturday, the sentence may be "Now, boy, touch Nemo."] When is the request made to touch a numb mouse ?—" *Now* boy, touch a numb mouse." Who is requested to touch the mouse ?—" *Now boy*, touch a numb mouse." What is the boy requested to do ?—" *Now boy*, touch a numb mouse." Are all the functions of the mouse in full activity ?—" *Now* boy, touch a numb mouse." What numb animal is the boy requested to touch ?—" *Now* boy, touch a numb mouse."

When the first Saturday is the *third* of the month, this sentence applies—" *My* days take newer might." [Here the last Saturday is 31st. In September, April, June and November, there are only 30 days. The last word therefore must be disregarded or another sentence taken, as :—" *My* ties deck Norah."] Whose days take newer might ?—" *My* days take newer might." Is it my days, months or years that take newer might ?—" *My* days take newer might." What is the action of my days in regard to newer might ?—" *My* days take newer might." Is it more recent or older might that my days take ?—" *My* days take newer might." What newer thing do my days take ?—" *My* days take newer might."

When the first Saturday falls on the *fourth* day of the month, the following sentence always applies :—" *Hero* taught Davy Noel." Who taught Davy Noel ?—" *Hero* taught Davy Noel." What was Hero's action in regard to Davy Noel ?—" *Hero* taught Davy Noel." What was Noel's christian name ?—" *Hero* taught *Davy* Noel." What was the surname of the man Hero taught ?—" *Hero* taught Davy Noel."

When the first Saturday falls on the *fifth* day of the month, the following sentence always expresses all the Saturdays of that month :—" *Will* Dan daub a niche ?" Is any inquiry made here ?—" *Will* Dan daub a niche ?" In regard to whom is the question asked ?—" *Will* Dan daub a niche ?" What untidy act in regard to the niche is inquired about ?—" *Will* Dan *daub* a niche ?" What is it which is asked if Dan will daub ?—" *Will* Dan daub a niche ?"

When the first Saturday is the *sixth* day of the month, this sentence always applies :—" *A* shy dame knows a knock." What is the character of the dame who knows a knock ?—" *A* shy dame knows a knock." What shy person knows a knock ?—" *A* shy dame knows a knock." Is the shy dame slightly acquainted with or positively sure of the knock ?

* February has 28 days, except in leap year, which recurs every fourth year, when the number of the year is exactly divisible by 4. In the latter case it has 29 days.

† When the sentence provides for one Saturday more than there is in the month in question, all the Pupil has to do is to disregard the last word, or substitute another sentence, as shown below.

"A shy dame *knows* a knock." What is it the shy dame knows?—"A shy dame knows a *knock*."

When the first Saturday falls on the *seventh* day of the month, all the Saturdays of that month are expressed by the figures which the following sentence represents:—"A hack tore a naughty knave." What tore a naughty knave?—"A *hack* tore a naughty knave." What act did the hack perform upon the naughty knave?—"A hack *tore* a naughty knave." What was the character of the knave?—"A hack tore a *naughty* knave." What naughty person did the hack tear?—"A hack tore a naughty *knave*."

The dates of the first Saturdays in each month in 1886 are expressed, in order, in this sentence:—*No judge may delay my garnisher.*

Let the Pupil allow his friends to take an ordinary almanack and question him as to the *day of the week* that *any day in any month* of this year falls on. And in subsequent years he can make his own Memory-Almanack from an ordinary almanack by fixing merely the dates of the Saturdays of each month. For 1887 the following sentence will answer: *They lie low, nay cringe amid loam.* He will find this Memory-Almanack of great use to him if he learns it thoroughly.

There are many other methods of knowing the day of the week any day in the year falls on. This is the most simple and easy, and does not require a quick faculty of arithmetical calculation.

Knowing in this manner the first Saturday, even the non-mathematical mind that knows also the sentences expressing all the Saturdays [and he can easily memorise them by the use of correlations or Interrogative Analysis], can instantly tell on what day of the week any day in the month falls in this or any other year for which he has prepared and learned the Saturday words. As some are accustomed to think of Monday as the 2nd day, and others as FERIA 2, it needs less thought to add 2 for Monday than 1, and so it is better that the days fixed by the figure-words be Saturdays rather than Sundays.

Example.—On what day of the week does the 29th of June fall?

Answer.—The last Saturday of June is the 26th [Will Dinah daub a niche.]; Sunday is 27, Monday 28 and *Tuesday* the 29th. Again, on what day of the week does the 15th of December fall? The Saturdays of December are "Hero taught *Davy Noel*." The 15th is between the 11th and 18th. The 18th is Saturday, the 17th Friday, the 16th Thursday and the 15th is *Wednesday*.

To tell the Day of the Week of any Date in this Century.

This may be done by Mentally going through the following little calculation:

Add together—The quotient of the last two figures of the year divided by 4; the remainder of the last two figures of the year divided by 7; the number of the given date; and an addendum (given below) for the month. The remainder of this result divided by 7 will give the day of the week.

The following Correlations will help to the memorising of this:

Day of week...day of month...four weeks in month...result of division by 4...four weeks and three days...remainder of division by 7...seven...number...number of date...date-palms...desert...silent...dumb...addendum...add...add all together...together...one family... "we are seven"...divide by 7...unite...unity...strength...main force...remainder is number of day of week.

Addenda for the months—

January...janitor...door...house...home...3
 (January...Jan...Ann [2] lady...lady's pro-
 posal...*leap year*)
 February...febrifuge...huge...6
 (February...29th Feb...*leap year* ... leap...
 heel...5.—If there is no remainder when
 the year is divided by 4, it is a leap year.)
 March...Foot...shoe...6
 April...ape...Darwin...win...2

May...sunny...ray...4
 June...Junnus...us...0
 July...He...bed...inn...2
 August...gust...howling wind...how...5
 September...ember...ashes...wood...1
 October...octavo...hymn book...hymn...3
 November...gnomon...sundial...watch...6
 December...dying year...adieu...1

Some examples will make the method clear:—

On what day was the 24th May, 1819, the date of the birth of Queen Victoria?
 Quotient of 19 by 4=4; remainder of 19 by 7=5; number of the date=24; addendum for May=4; Total=37, which divided by 7 leaves 2. *Answer*, 2d day, i.e., Monday.
 On what day was the 14th April, 1865, the date of the death of Abraham Lincoln?
 Quotient of 65 by 4=16; remainder of 65 by 7=2; number of the date=14; addendum for April=2; Total=34, which divided by 7 leaves 6. *Answer*, 6th day, i.e., Friday.
 On what day was the 6th of May, 1821, the date of the death of Napoleon 1st?
 Quotient of 21 by 4=5; remainder of 21 by 7=0; number of the date=5; addendum for May=4; Total=14, which divided by 7 leaves 0.
 Notice that when there is no remainder, the day is Saturday; therefore; *Answer*=Saturday.

Remarks.—In Synthesis, Predicating Correlation, and in this Lesson, I have given numerous illustrations where numbers are involved. But my System, unlike Mnemonics, does not find its special function to consist in its application to numbers. My System applies wherever there are *ideas, thoughts or impressions* of any kind whatsoever to be cemented together. I could have filled these three Lesson Papers with applications to the Sciences, Practical Arts, &c., where numbers would have been involved only incidentally. And, if my System is more powerful in one respect than in another, it is in learning by heart prose and poetry, in mastering the entire circle of the Sciences, History, &c.

Dealing with numbers is rather difficult to the *beginner*. So, in his interest, I selected the examples I have presented, because they familiarise him with Dates and Numbers in all their uses, and because also those examples offer the greatest possible variety of work for practice, and because those examples are most useful for Mental, and especially Memory Training, and finally, because of their great practical utility to all. At the same time the Pupil has acquired the invaluable Art of Correlating. Hereafter, he will make other applications of my System already provided for in principle in these lessons, and hence, they will cost him no trouble to deal with if he has really mastered these lessons.

Whereas, if I had filled these three Lesson Papers with applications to the Sciences only, many would not have cared for such applications, and all would have found it more difficult themselves to have applied my System to such examples as are contained in these Lessons. I may also remind the pupil of the many applications I have already made of it to cases where Numbers are not involved, and to the further fact that the whole of the next and Last Lesson are taken up with matters where Numbers are not brought into play.

THE HIGHER ANALYSIS AND SYNTHESIS.

I.—The following application of my System is extremely dangerous to all who have not had *thorough* practice in Analysis. Those who have not had such practice should not proceed further, until they have patiently analysed afresh the Presidential, Dough Dodo, and Heptarchy Series, and all my Correlations, as well as all their own; or, what is better still, until they have made a Correlator of 500 or 1000 words, analysed it and thoroughly memorised it. It is only in one of these ways that the Pupil realises the full power of the relations of In., Ex. and Con. And after this cultivation of the Memory to the quick appreciation of these relations, even very weak ones become vivid to him, *if he make them himself*. Sometimes, in the Higher Analysis and Synthesis, a Pupil feels the connection most keenly, and yet it is impossible for him to formulate the designation of what it precisely is.

Before applying the Higher Analysis and Synthesis to historical facts

it would be better to master at least one book of history in the manner described in the next lesson. After that, in carrying on historical studies, occasions will frequently occur for the application of *In.*, *Ex.*, and *Con.* to recorded facts.*

INCLUSION embraces cases where the same kind of facts or the same principles were involved, or where different events happened during the same period; or the same figures occur in different dates with regard to somewhat parallel events. For instance, Garibaldi (the Italian), and Skobelev (the Russian), both great and recklessly patriotic generals (*Inclusion*), and both favourites in France (*Inclusion*), died in the same year, 1882 (*Concurrence*); Longfellow and Rossetti, both English-speaking poets (*Inclusion*), died in the same year, 1882 (*Concurrence*).

See also examples, 1, 2, 3, 5, 6, 7, 8, 10, 11.

EXCLUSIONS imply facts from the opposite sides relating to the same events, conspicuously opposite views held by the same man at different periods, or by different men who were noticeably similar in some other respect; or antithesis as to the character or difference in the nationality of different men in whose career, date of birth, or what not, there was something distinctly parallel. What a vivid *Exclusion* there is here, for instance:—The Patriarch Abraham died 1821 B. C., and Napoleon Bonaparte died 1821 A. D.

See also examples, 2, 3, 4, 6, 7, 11.

CONCURRENCES are found in events that occur on the same date, or nearly so, even if they have not much else in common. Dr. C. Darwin, who advocated *Evolution*, now popular in every quarter of the globe, and Sir H. Cole, who first advocated *International Exhibitions*, now popular in every quarter of the globe, were born in the same year, 1809, and died in the same year, 1882—double *Concurrence*. Many *Coincidences* are *Concurrences*. For instance, on Sunday, 21st November, a great meeting, called by agitators claiming to represent “the unemployed,” was held in Trafalgar Square, professedly to “stir up” the upper classes to an appreciation of the want by the poor of work, wages, and food. The collect for that day in the Common Prayer Book commences with the words, “stir up;” the Gospel for the day records the assembling of “a great company,” and the asking of the question, “Whence shall we buy bread that all these may eat?” (John vi. 5). The agitators allege that unfairly low wages are paid to match-box makers, seamstresses, and other workers; and in the first evening Lesson occur the words, “I will be a swift witness . . . against those that oppress the hireling in his wages” (Mal. iii. 5).

See examples 1, 3, 4, 5, 6, 7, 8, 9, 11.

As in ordinary *Recollective Analysis*, so in the *Higher Analysis*, one case frequently includes two and sometimes all three—*In.*, *Ex.*, and *Con.* Moreover, when two events are looked at together, there may be *Concurrence* as to one circumstance, *Inclusion* as to another, and *Exclusion* as to a third.

EXAMPLES.

(1) Two renowned mathematicians, Euler and D'Alembert (who both dedicated some of their works to members of reigning families), died in

* Similarly, Doctors, Lawyers, Clergymen, &c., &c., can apply these principles to their own special cases.

1783 (*talk of him*). D'Alembert—who died in the year of the treaties of Paris and Versailles (3 Sept. 1783), recognising the independence of the United States of America, at the conclusion of a war in which the *French* had sided with America—was born in 1717 (*wood-cutting*), date of the foundation by the *French* of the city of New Orleans.

The former part of this example is a specimen of Inclusion, and the latter of Concurrence.

(2) Two illustrious, uncompromising characters (Inclusion), both brilliant essayists (Inclusion), the one a representative of the music of the future, the other of the obsolete polemic of the past (Exclusion), Richard Wagner and Louis Veuillot were born in the same year, 1813, and died in the same year, 1883 (*they have time—they have fame*). The last point is a double Concurrence.

(3) Two foremost harbingers of modern thought (Inclusion), Voltaire and J. J. Rousseau, died in 1778 (*I think of you*)—(Concurrence). Both gained for themselves the reputation of having been the most reckless antagonists of Christianity (Inclusion). And still the one dedicated a church to the service of God, whilst the other in his "Emile" wrote a vindication of Christianity (Exclusion as to each of them, Inclusion as to both of them).

(4) Albrecht Dürer (1440-1528), the famous realistic German painter, died in 1528, and Paul Veronese (1528-1588), the great Italian colourist, was born the same year (*oddly enough*). Both were painters (Inclusion); one was the greatest of artists in black and white, the other famous for his brilliant colouring (Exclusion). In the same year the one was born and the other died (Concurrence and Exclusion).

(5) Lisbon was ruined by an earthquake in 1755 (*hot coal-hole*). In that same year (Concurrence) the discovery of the ruins of Pompeii was published to the world, thus reviving the recollection of the overwhelming of that city by a volcano. Both cities were destroyed by subterranean disturbances (Inclusion); the ancient event became generally known when the recent one happened (Concurrence).

(6) Galileo, founder of Modern Astronomy, born in 1564 (*tall watcher*) died in 1642 (*a teacher won or the journey*), the very year in which Sir Isaac Newton was born. Galileo's theory was not proved but merely made probable until the existence of the laws of gravitation was established, and it was Newton who discovered gravitation. This is an instance of inclusion as to the men themselves, of Exclusion and Concurrence as to common date of birth and death.

(7) Two prominent *litterati* (Inclusion), one a Frenchman, the other an Englishman (Exclusion), well known for the pomposity and sonority of their style of writing (Inclusion), were born in the same year, 1709, and died the same year, 1784 (*to gossip, take over*)—a double Concurrence—Lefranc de Pompignan (pompous)—(In. by S.), Johnson.

(8) General Foy, an *orator* and artillery officer, fond of literature, was born the same year (Concurrence), 1775 (*tangle*), as the *orator* (Inclusion), Daniel O'Connell. He died in 1825 (*dicine law*), the same year (Concurrence) as Paul-Louis Courier, who was also artillery officer (Inclusion), fond of literature (Inclusion) and moreover, like O'Connell, a violent pamphleteer (Inclusion).

(9) Haydn, the great composer, was born in 1732 (*tongue of men*), and died in 1809 (*the heavy sob*); this date corresponds to that of the birth (Exclusion and Concurrence) of another famous composer (Inclusion),

Mendelssohn, who himself died in 1847 (*devouring*), the same year as O'Connell.

(10) End of Augustus' Empire at his death, 14. End of Charlemagne's at his death, 814. End of Napoleon's at his abdication, 1814.

This is simple Inclusion as to the empires, and Inclusion by Sound as to the dates, "14" being in all, and "814" in two of them.

(11) Mary Stuart, for some time Queen of France, born in 1542 (*to learn*)—100 years before the death, at Cologne, of another Mary, Queen of France (Marie de Medicis)—was married to the Dauphin of France (afterwards Francis II.) in 1558 (*dual life*). This same date is that of Elizabeth's accession to the throne. This date again coincides with the death of the Emperor Charles V., and the commencement of the downfall of Spain, England's most powerful rival. Under this same Elizabeth, 1588 (*they leave a few*) the great Catholic invasion was frustrated by the destruction of the Armada, whilst 100 years later, 1688 (*to shave off*), a Protestant invasion (William III.'s) was invited by the Parliament and welcomed by the people. Bunyan, the great Protestant writer, died that very year.

Let the Pupil point out the In., Ex. and Con., in this example, as I have in the others; and send his analysis to me, accompanied by other specimens selected as well as analysed by himself.

See page 160.

HOW TO MEMORISE MONTHS AND DAYS AS WELL AS YEARS.

Pupils sometimes ask how months and days, as well as years, can be memorised. They ought to see, from specimens already given, how to deal with hours and minutes as well, if need be. We here illustrate one method of dealing with months and days. The day of the month on which any king came to the throne, and the length of his reign, may be fixed thus:—For the name of the month take the equivalent figures of the first two consonants, thus:—For January (Jan.) 62, February (Feb.) 89, March (Mar.) 34, April (Apr.) 94, May (m-m) 83, June (n-n) 22, (62 having been already used for January), July (Jul.) 65, August (Gus) 70, September (Sep.) 09, October (Oct.) 71, November (Nov.) 28, December (Dec.) 10. For the day of the month keep always two places, that is, where there is only one figure, prefix a nought: taking (in the case of Henry I.) for 5th, 05. Keep two places, in the same way, for the years of the reign; *e.g.*, in the case of Mary, 06. There will then be no difficulty in distinguishing in the Date Phrase the year of accession, the month, the day of the month, and the length of the reign. Take the phrase in the case of William the Conqueror: "The wise judge got through any day." You have already memorised the Correlation between William I. (wit) and "the wise judge" (1066), and have only to learn the rest of the phrase, "got"=71=hard c and t=October. "Through"=14, *i.e.*, "got through" means "October 14" and William I. dated the commencement of his reign from Oct. 14th, 1066. "Any day"=21, and reminds you that William I. reigned 21 years. In the same way you can extend the other date words or phrases which you have memorised in connection with the English kings. Here are some specimens:—

William I., 1066, Oct. 14—21 yrs....The wise judge got through any day.

William II., 1087, Sep. 26—13 yrs...Deceiving is punished, Amy.
Richard I., 1189, Sep. 3—10 yrs. ...The day of hope is happy as amity is.

Edward II., 1307, July 8—20 yrs. ...A damask shawl has often ease.
Mary, 1553, July 6—6 yrs. ...A tall elm-hedge less shews age.
Elizabeth, 1558, Nov. 17—45 yrs. ...Dual life inviting rule.
George I., 1714, Aug. 1—13 yrs. ...A Doctor walks a set time.
George IV., 1820, Jan. 29—11 yrs....Toughness I shun on a bath day.
Victoria, 1837, June 20th ...Day of Maying known once.

These are awkward sentences, but can be easily learned by the aid of memorised Correlations, or Interrogative Analysis.

ROMAN EMPERORS FROM JULIUS TO CONSTANTINE.

Roman emperors...imperial era...ear...drum...beat...*knock* (27)...wound
...swelling...augment...AUGUSTUS...gusty...trim sails...rigging...*tar* (14)
...sailor...boatman...river...Tiber...TIBERIUS...beer...pint...*mug* (37)...
cup...cup of flower...calix...CALIGULA...ligature...bleeding...blue blood
...aristocrat...*rat* (41)...cat...claw...CLAUDIUS...laud...sing praises...
harp...*lyre* (54)...musical instrument...fiddling...burning...NERO...row
...boat...*ship* (69)...galley...GALBA...albatross...ancient mariner...curse
...oath...OTHLO...Othello...Iago...tell-tale...VITELIUS...us...we two...
sweethearts...*kiss* (70)...passion...VESPASIAN...vespers...vestment...*cope*
(79)...coping...wall...wall of Jerusalem...TITUS...conqueror of the
Jews...conqueror...*fight* (81)...brave...indomitable...DOMITIAN...domi-
cile...house servant...footman...*page* (96)...leaf...tender shoots...tender
nerves...NERVA...strong nerves...stout...*beef* (98)...dinner-waiter...tray
...TRAJAN...tragic end...killing a pig...*dead hog* (117)...pork...food...
fodder...hay...hay drying...HADRIAN...Adriatic...sea...unpleasant mo-
tion...*to move* (138)...immovable...chaste St. Anthony...ANTONINUS PIUS
...pie...pigeon pie...shooting...*to shoot* (161)...target...mark...MARCUS
AURELIUS...reliable...untrustworthy...*thieves* (180)...pirates...captain...
commodore...COMMODUS...commodious...cramped garret...*the beam*
(193)...sunbeam...sunstroke...severe...SEVERUS...severe trial...win your
spurs...*knighthood* (211)...knight...medieval horsemanship...caracole...
CARACALLA...callous...care for nothing...*nothing* (217)...nought...
naughty...punishment...may cry...MACRINUS...Rhine wine...swallow
...oyster...(or, Lucrine Lake...oysters)...*native* (218)...talk like a native...
gabble...ELAGABALUS...gab...conceited talk...ask for more...“no, no, no”
(222)...knowing...canny...Scotchman...Sandy...ALEXANDER SEVERUS
...Bucephalus...fine horse...*animal* (235)...fox...run to ground...run him
in...MAXIMIN...maxim...wise saw...sage...clever...“no muf” (238)...
furs...smartly dressed...gaudily dressed...GORDIAN...knot...ten knots an
hour...nearer home...*nearer* (244)...farther...father of Alexander the
Great...PHILIP...lover of horses...harness...*new rope* (249)...hanging...
drop...descent...DECIUS...decimate...destroy...*annihilate* (251)...late...
early...cock-crow...cock...GALLUS...gall...vinegar...crucify...*nail him*
(253)...cruel death...valley of death...VALERIAN...(and cruel death...
gallows...GALLIENUS)...valueless...chaff...*no chaff* (268)...grain...pick
up grain...fowls...claws...CLAUDIUS...Claude...French painter...French
wines...*negus* (270)...drink...drunk...reel...AURELIUS...oral teaching...
coaching...*in a coach* (276)...coach...bus...PROBUS...probe...feel for...
search...*in vain* (282)...all is vanity...cares of life...CARUS...caress

...never leave you...*never* (284)...never say die...DIOCLETIAN...die...bullet...billet...*message* (306)...bulletins...constant messages...CONSTANTINE.

Let the Pupil send me his own Correlations for the above.

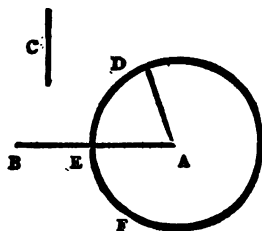
MEMORISING PROPOSITIONS IN EUCLID.

In regard to the Demonstration of Prop. 3, Book I. of Euclid, given below, it must be noted that what I have offered, is done mainly to help the Student to the comprehension of the Proposition, &c. I assume he is studying alone, without a teacher's aid. If he clearly *understands* every link in the chain of Exposition and of the Demonstration, the recollection of them is practically assured. He can then recite the Proof, etc., with the brevity and in the exact language of Euclid if he prefers.

Enunciation.—"From the greater of two given straight lines to cut off a part equal to the less."

Its Memorisation.—Does the Proposition imply that we add to or take away from the greater line?—"From the greater of two given straight lines to cut off a part equal to the less." From which of the two lines must we cut off a part?—"From the *greater* of two given straight lines to cut off a part equal to the less." How many given lines are there?—"From the greater of *two* given straight lines to cut off a part equal to the less." Are there any particular lines in question?—"From the greater of *two given* straight lines to cut off a part equal to the less." From the greater of what do we cut off a part?—"From the greater of two given straight *lines* to cut off a part equal to the less." What kind of lines are they from one of which we cut off a part?—"From the greater of two given *straight* lines to cut off a part equal to the less." Given our two straight lines, what do we now proceed to do?—"From the greater of two given straight lines to *cut off* a part equal to the less." What do we cut off from the greater line?—"From the greater of two given straight lines to cut off a *part* equal to the less." What relation does the part we cut off from the greater bear to the less line?—"From the greater of two given straight lines to cut off a part *equal* to the less." To what is the part we cut off equal?—"From the greater of two given straight lines to cut off a part equal to the *less*."

Which are the two given straight lines?—"Let AB and C be the two given straight lines, of which AB is the greater." Which is the greater of these two given straight lines?—"Let AB and C be the two given straight lines, of which AB is the greater." What is required to be done with regard to these two given straight lines?—"It is required to *cut off* from AB, the greater, a part equal to C, the less."



Construction.—From the point A, draw the straight line AD equal to C. From what point is AD drawn?—"From the point A, draw AD equal to C." What straight line is drawn from A equal to C?—"From the point A, draw the straight line

AD equal to *C*." What is the length of *AD*?—"From the point *A*, draw the straight line *AD* equal to *C*." Equal to which straight line is *AD*?—"From the point *A*, draw the straight line *AD* equal to *C*." How is a straight line drawn from a given point *A*, and equal to a given line *C*?—"From a given point, to draw a straight line equal to a given straight line." (Proposition 2.) What further use is made of the point *A*?—"And from the centre *A*, at the distance *AD* describe the circle *DEF*, meeting *AB* in *E*." What is the radius of the circle?—"And from the centre *A*, at the distance *AD*, describe the circle *DEF*, meeting *AB* in *E*." What is described from the centre *A* and at the distance *AD*?—"From the centre *A*, at the distance *AD*, describe the circle *DEF*, meeting *AB* in *E*." Where does the circle cut *AB*?—"And from the centre *A*, at the distance *AD*, describe the circle *DEF*, meeting *AB* in *E*." What is the position of the circle *DEF*, with regard to *AB*?—"And from the centre *A*, at the distance *AD*, describe the circle *DEF*, meeting *AB* in *E*." Can a circle be drawn according to Euclid?—"Let it be granted that a circle may be described from any centre, at any distance from that centre." (Postulate 3.)

Hypothesis.—Then what about the length of the part *AE*?—"AE shall be equal to *C*." Is this proved?—"AE shall be equal to *C*."

Proof.—What follows from the fact that *A* is the centre of the circle *DEF*?—"Because the point *A* is the centre of the circle *DEF*, therefore *AE* is equal to *AD*." What is equal to *AD*?—"Because *A* is the centre of the circle *DEF*, therefore *AE* is equal to *AD*." How do we know that lines drawn from the centre of a circle to the circumference are equal?—"A circle is a plane figure contained by one line, which is called the circumference, and is such, that all straight lines drawn from a certain point within the figure to circumference are equal." (Definition 15.) What else is equal to *AD*?—"But *C* is equal to *AD*." How is *C* equal to *AD*?—"From the centre *A*, draw the straight line *AD* equal to *C*." (Construction.) What two lines then are equal to *AD*?—"Therefore *AE* and *C* are each of them equal to *AD*." What is the result?—"Therefore *AE* is equal to *C*." What is the length of *AE* as compared with *C*?—"Therefore *AE* is equal to *C*." How is *AE* equal to *C*?—"Things which are equal to the same thing, are equal to one another." (Axiom 1.) What two lines are equal?—"Therefore *AE* is equal to *C*."

Conclusion.—From what straight line has *AE* been cut off?—"Wherefore from *AB*, the greater of the two given straight lines, a part *AE* has been cut equal to *C*, the less." What is *AE* equal to?—"Wherefore from *AB*, the greater of the two given straight lines, a part *AE* has been cut off equal to *C*, the less." Which is the required part?—"Wherefore from *AB*, the greater of two given straight lines, a part *AE* has been cut off equal to *C* the less." Q. E. F. (=quod erat faciendum).

To memorise the number of the proposition, make a Double Inclusion, the first consonant of which expresses the number of the Book and the remaining consonant or consonants indicate the number of the Proposition: thus, Judge would mean the sixth Proposition of the sixth Book. Then correlate this Double Inclusion to the characterising word [always the principal or new point] of the Proposition itself, and memorise the Correlation. In this way you can recite the Propositions of each Book forward or backward without mistake, or instantly tell the number of any Proposition and the Book to which it belongs, or on any number of

- a Proposition of any Book being mentioned, you can state at once the Proposition itself if you have memorised it.
- B. I., P. 1.—*Deed...deed-box...equal sides...EQUILATERAL...*“To describe an *equilateral* triangle, &c.”
- B. I., P. 2.—*Then...thence...FROM...*“*From* a given point, &c.”
- B. I., P. 3.—*Dam...to block up...blockade...CUT OFF...*“From the greater, &c., *to cut off*, &c.”
- B. I., P. 4.—*Wither...withered...THIRD...*“If two triangles have, &c., they shall also have their bases or *third* sides equal.”
- B. I., P. 5.—*Talk...long legged...equal legged...ISOSCELES...*“The angles at the base of an *isosceles* triangle, &c.”
- B. I., P. 6.—*Dish...waiter...attendant...sub-attendant...SUBTEND...*“If two angles of a triangle be equal, &c., the sides also which *subtend*, &c.”
- B. I., P. 7.—*Dock...tail...end...TERMINATION...EXTREMITY...*“On the same base, &c., there cannot be two triangles having their sides which are *terminated* at one *extremity* of the base, &c.”
- B. I., P. 8.—*Dove...Hurlingham...lawn tennis...contended by two sides...CONTAINED BY THE TWO SIDES...*“If two triangles have, &c., and likewise their bases, &c., the angle which is *contained by the two sides*, &c.”
- B. I., P. 9.—*Dip...compass needle...quadrant...RECTILINEAL ANGLE...*“To bisect a given *rectilineal angle*, &c.”
- B. I., P. 10.—*Dates...leap years...bissextile...BISECT A STRAIGHT LINE...*“To *bisect* a given *finite straight line*,” &c.
- B. I., P. 11.—*Dotted...dots...full points...points in the book...POINT IN...*“To draw a straight line at right angles, &c., from a given *point in* the same.”
- B. I., P. 12.—*Outdone...done without...POINT WITHOUT...*“To draw a straight line perpendicular to a given straight line, &c., from a given *point without* it.”
- B. I., P. 13.—*Diadem...diamond...gem...cat's eye...* EITHER...*“The angles which one straight line, &c., *either* are two right angles, &c.”
- B. I., P. 14.—*Theatre...tragedy...tragic...touching...ADJACENT...*“If at a point, &c., two other straight lines, &c., make the *adjacent* angles, &c.”
- B. I., P. 15.—*Total...teetotaler...firm step...upright...VERTICAL...*“If two straight lines cut one another, the *vertical*, &c.”

DERBY WINNERS.

PRIVATE and PUBLIC MEMORIES.—Many persons whose memories are reliable in Private, seem to lose all control over their recollective powers in the presence of their friends. This is owing to mind-wandering and nervousness. These infirmities can be completely cured by doing Memory-feats in the presence of others. Let the Pupil who is anxious to attain the FULL POWER of my System recite the Knight's Tour, The Boat Race, Ratio, and Derby Winners, at least 20 times—each of them—before their friends or acquaintances. This practice will

* The diphthong *ei* is sometimes pronounced like long *E* and sometimes like long *I*. Here I adopt what seems to be the better usage, and I pronounce it as long *I*, making a perfect *In*. by *S*. with *cat's-eye*.

strengthen their continuity, overcome nervousness, and make them understand the real nature and character of my System, and enable them to apply it readily to new and hitherto unsuspected cases. And let the Pupil hand the Listener only the papers that contain the unsolved problems—not the papers that explain *how these feats are done*. They should let them see the paper containing the Knight's Tour only—the Figures and Facts of the Boat Race and Ratio only—and the List of Derby Winners and their Dates only. Below, the Derby Winners from 1780 to 1790 are correlated to their date-words. The Pupil will find it a good exercise to select Date-words for the years from 1791 to 1886, and correlate those and all the Derby Winners together as I have correlated the first ten. Those who hate racing and its concomitants, and I fully endorse all their condemnation of racing immoralities, must acknowledge that this is an incomparable series for practice in making and memorising Correlations.

DERBY...Derby dog...*dog face* (1780)...hang-dog-look...villain...deep-dyed...DIOMED.

Vat (1781)...vaticinator...prediction...foretelling eclipse...YOUNG ECLIPSE.

Fan (1782)...cool...blood-heat...blood...ASSASSIN.

Foam (1783)...sea...salt...SALTRAM.

Fire (1784)...rifle...volunteer...SERGEANT.

Fall (1785)...apple...William Tell...AIMWELL.

Fish (1786)...bait..."gentle"...gentleman...NOBLE.

Fag (1787)...fagot...fire...peat...SIR PETER TREAZLE.

Fife (1788)...fife and drum...soldiers...massacre...SIR THOMAS.

Fog (1789)...watch...watch-dog...Skye terrier...SKYSCRAPER.

As the years follow each other without interval there is no need to correlate them together. The name of the horse is correlated *after* the date-word.

The names of the horses and dates will be found on the enclosed slip. In *Whitaker's Almanack* for 1885, p. 353, is a list of Derby Winners, with names of Jockeys and Owners, from 1864 to 1884.

When he knows the names and dates of the horses, the Pupil can, if he likes, correlate to each horse the name of the Jockey. Thus, for 1883:—ST. BLAISE...*Fire...coal...origin of coal*...C. WOOD; and to Wood, the Jockey's name, he can correlate the name of the Owner, Sir F. Johnstone, thus:—Wood...*Forest...rest...lust resting-place...tombstone*...SIR F. JOHNSTONE. And similarly he can fix in his memory the names of the other Jockeys and Owners.

LEARNING LEDGER FOLIOS, CHEMICAL FORMULÆ, &c.

If a book-keeper wishes to learn the number of the ledger page where the name is entered, he at once correlates the name to the word that translates the figures that express the number of the page. But, in the case of the same name being entered on several different pages of the same book, he correlates the name to the words that successively express the different pages. But suppose the more difficult case of there being several different men, having the same name, as a dozen Browns, a dozen Smiths, &c., &c., what is he to do? A reperusal of the explanation of Double Inclusion, &c., in Synthesis, will give one out of the

many ways that he could resort to memorise the pages. Suppose the Smith of Edinburgh is on page 941, the Smith of Liverpool on page 53, and the Smith of Birmingham on page 745. He at once makes a word *beginning* with *S* to tell him it is Smith, and having as its remaining consonants letters which translate the number of the page. "Support" is therefore the Edinburgh Smith, on page 941; "Siloam" is the Liverpool Smith, on page 53; and "Squirrel" is the Birmingham Smith, on page 745. And if he doubt his natural memory, he correlates "Edinburgh" as the "best known" to "support," thus: EDINBURGH..burglar..transportation...SUPPORT: LIVERPOOL..pool...SILOAM; BIRMINGHAM..burr..nut..SQUIRREL. Or, if the Browns and Smiths, &c., &c., are all in the same city where he resides, he can use the *name* of the street as the "best known" and correlate that to the homophone as above that tells the name and the number.

Similarly, a Pupil could deal with a Chemical Formula, like Quinia = C_{20}, H_{24}, N_2, O_2 . He could make a word *beginning* with the Symbol of the chemical element, while the remaining consonants of the word spell the figures attached to that element. C_{20} would make Canes, H_{24} would make honour, N_2 would make Nun, and O_2 would make One. By correlating these words together, and memorising the Correlations, he can at once restore the Formula from memory: [QUINIA..quinine..cat-o'-nine tails..lushes..CANES..cuning..disgrace..HONOUR..purity..NUN..none..ONE]. And whatever the complication might be, he can always readily deal with it—for instance, suppose there are numbers both before and after such Symbol, as 3 C_{20} , 10 H_{24} , 2 N_2 , and 7 O_2 , these would be translated into: My Canes, Dishonour New Nun, and Coy One.

MULTIPLICATION TABLE.

Continued as far as 13 times 24.

In memorising this extension of the ordinary multiplication table, it is not necessary to notice the figure 1 before the 3 of 13 and in the other "teens," as the learner of course knows it must be repeated every time, and does not need to remind himself of it; therefore, "maim" may mean "3 times 13" instead of "3 times 3;" "mummy" may mean "13 times 13" instead of "3 times 3;" and MANOR, 13 times 24.

NUMb...	} teeth chattering...	gNASH
twice (1)3 is	{	2 6
MAIM...	} mutilate...devilish...	IMP
3 times (1)3 is	{	39
REAM...	} paper...white...	LAWN
4 times (1)3 is	{	5 2
LOOM...	} woven...	SHAWL
5 times (1)3 is	{	6 5
JAM...	} bread and jam...breakfast...	COFFEE
6 times (1)3 is	{	7 8
GAME...	} cricket...	BAT
7 times (1)3 is	{	9 1
FUME...	} rage...passion...	DESIRE
8 times (1)3 is	{	1 04

BeAM...	{ "own eye"...tooth	Teething
9 times (1)3 is		1 1 7
DiSMAY...	{ appalling...death...	DeMise
10 times (1)3 is		1 3 0
Diadem...	{ stage king...	DRAMA
11 times (1)3 is		14 3
auTONomy...	{ economy...thrifty...peasant...	TiLLage
12 times (1)3 is		1 5 6
MuMmy...	{ stone box...toy box...	TOYsHOP
(1)3 times (1)3 is		1 6 9
HoMeR...	{ blind...deaf...	DeaFeN
(1)3 times (1)4 is		1 8 2
MeaL...	{ dining table...	TABLE
(1)3 times (1)5 is		1 95
MatCh	{ safety match...safe...	UNSafe
(1)3 times (1)6 is		20 8
MiCa...	{ glittering...bright...	NOONDay
or, MaCaw...	{ vivid scarlet...bright...	NOONDay
or, MeEK...	{ cowed...stray dog...	UNOWNed
or, oMeGa...	{ end...end of life...	NiNeTy
(1)3 times (1) 7 is		2 2 1
"MuFF"...	{ soft youth...love...	eNAmour
(1)3 times (1)8 is		2 3 4
MoB...	{ crowded...Noah's Ark...	NeWARK
(1)3 times (1)9 is		2 47
MinCo ..	{ cut small...small cuts...	NotChes
(1)3 times (2)0 is		2 6 0
MoNDay...	{ market day...profits...	INCOme
(1)3 times 21 is		2 7 3
MinION...	{ mean favourite...tricky...	kNaviSH
(1)3 times 22 is		2 8 6
amMONium...	{ ammonia...pungent...pickles...	"NaBOB"
(1)3 times 23 is		2 9 9
MaNoR...	{ farm...sheep...	MuTTON
(1)3 times 24 is		3 1 2

The Pupil will find it a good exercise in the use of the Figure Alphabet, and of Synthesis, to continue this table to "24 times 24."

EXPLANATIONS OF THE MACREADY ANECDOTE.

The student must exercise his judgment as to what is the *best known* to which he will Correlate an *isolated fact*. In the anecdote mentioned in a foot note* to Comic Lecture on Mnemonics, the actor

* The following anecdote is taken from the ERA ALMANACK, 1882, p. 36.—The Actor, whose name was Taylor, could not remember the name assigned him in his part in the play. We shall see how Mnemonics helped him!

ASSOCIATION OF IDEAS.—Macready was once victimised in *Virginius*. The Numitorius could not remember his own name. "You will remember it, Sir," said the tragedian, carefully pronouncing it for him, "by the association of ideas. Think of Numbers—the

should have correlated the word "Numitorius," which he could *not* remember, to the word "Uncle" as the BEST KNOWN that preceded it, which he could remember, or to his "cue" the word "Question," thus:

UNCLE [2] Nephew [1] You [1] You *knew*—NU-mitorius. Or,
UNCLE [2] Niece [1] Neat [1] Neat and New [1] A *new* *mitre* *ore* *us* [1] NU-mitorius.

Or,
QUESTION [1] Wants to know [1] Know [1] Knew [1] *knew my story* [1] NU-mitorius.

Or,
QUESTION [1] Quest [1] Guessed [1] Knew [1] *Knew a mighty Tory!* [1] NU-mitorius.

Had the actor memorized either of these Correlations, he would *not* have forgotten Numitorius in his performance. In all similar cases mere In. by sound, like the word "Numbers" which Macready proposed, and which is really not a genuine In. by sound, is no service to a poor memory.—A Correlation alone suffices.

To any conceivable "*Isolated Fact*" you can find a *Best Known* to which you can correlate it, and thereby always have it at command. This is true, even in cases of *anticipatory* memory. Instead of tying a string round your finger to remind you to buy something when you get to the bazaar, and when you get there forgetting to notice the string or forgetting what the string was intended to remind you of, correlate the name of what you wish to purchase to the name of something you are sure to *think* of at the place you are going to, and memorise the Correlation. When you see the *Best Known*, the thing you correlated to it will at once occur to mind. I will add only one more illustration: A commercial traveller was in the habit of putting his watch under his pillow, and also in the habit of forgetting that he put it there! After losing two watches in this way, he came to me to improve his memory, and asked me if my System could aid him to think of his watch and where he had put it. "Infallibly," I replied, "if there is anything you can mention which you are *certain* to think of when you get up, such as boots, trousers, hat, &c." "There is one thing," he rejoined, "I am more certain to think of than any article of clothing. I always think what a shame it is I have to get up." "Well, you are sure to think of the words 'get up'; that then is your *Best Known*. Affiliate the word watch to it—thus 'GET UP'—Spring up—Watch Spring—WATCH." After a tour of four months he reported he had always thought of his watch the moment he awoke.

THE LOISETTIAN WATCH.

(1) The following is a provisional method to aid in keeping future engagements:—

(2) First arrange and memorise Equivalents for the hours from 6 a.m. to 6 p.m., or later for each future occasion whenever he requires to remember engagements ahead—by Synthesis before noon, and by Analy-

Book of Numbers." The Numitorius did think of it all day, and at night produced, through "the association of ideas" the following effect—

Numitorius—"Where is Virginia? Wherefore do you hold that maiden's hand?"

Claudius—"Who asks the question?"

Numitorius—"I, her Uncle—DEUTERONOMY!"

sis after, thus: 6 a.m. . . sick . . . DOCTOR; 7 a.m. . . Severn . . . RIVER; 8 a.m. . . eat . . . loaf . . . FISHES; 9 a.m. . . ninepins . . . PINCUSHION; 10 a.m. . . tender . . . beef . . . KNIFE; 11 a.m. . . leaven . . . bread . . . OVEN. NOON. 1 p.m. . . WONDER; 2 p.m. . . TOOL; 3 p.m. . . THREE-DECKER; 4 p.m. . . FOREARM; 5 p.m. . . FIVES; 6 p.m. . . SICKLE; 7 p.m. . . SEVENSHOOTER; 8 p.m. . . EIGHT-OARED BOAT; 9 p.m. . . MUSES; 10 p.m. . . TENTACLES, &c. Half hours could be indicated thus: 6½ . . . DIPLOMA [Doctor's Diploma]; 7½ . . . MOUTH [River Mouth]; 8½ . . . NET [Fishes, Net], &c.

Let the Pupil make and memorise Hour-Equivalents for each future occasion when wanted, so that he can repeat them in connexion with the hours they respectively stand for with the greatest speed both ways.

(3) Now suppose he wishes to do some special thing at each of those hours to-morrow, or at only one, two or more of them, Correlate the Hour-Equivalent to the thing to be done at that hour, and memorise the Correlation. The last thing before going to bed to-night; and to-morrow morning, when he first wakes up, let him go through the Hour-Equivalents and revive what he had correlated to each of them. And when the clock strikes 6, 7, &c., he will think or *have the means of recalling* what he had yesterday desired that he should do at that hour. To give a few illustrations, I append—

6 a.m.,	DOCTOR	..pill..silver coated..	<i>New coat.</i>
7 "	RIVER	..rivulet..let go..	<i>Permission.</i>
8 "	FISHES	..scales..counter..	<i>Shop.</i>
9 "	PINCUSHION	..pin..spike..bill-file..	<i>Office.</i>
10 "	KNIFE	..assassin..death..life..	<i>Life insurance.</i>
11 "	OVEN	..door..look..	<i>Key.</i>

(4) After considerable practice, he will to-morrow think of the special things, even without correlating them to the Hour Equivalents. The reason is that he has created a Habit of *pre-adjustment of mind* to a certain class of future events. The soldier sleeping in camp will not awaken when his name is called out loudly; but, if "turn out" is spoken quietly, it will arouse him, because to that sound his faculties are specially pre-adjusted. Similarly, when the Hours of next day arrive, my Pupil will spontaneously recall what he had resolved to do at that hour. During my busy season, I make daily 20 to 50 engagements for the future. I make no memoranda and I never forget the day nor the hour. And it is the same with my diligent Pupils.

(5) This "Watch," which never tells the time of day [that is left to the *mechanical* watch or clock], is a mental Event-Reminder, and it only serves to call to mind what you had planned to do as the hours arrive. It is never *wound up*, unless the future event is correlated to the Hour-Equivalents, and recalled several times, and especially on the day the event is to happen.

LATITUDES AND LONGITUDES.

The method of dealing with Latitudes and Longitudes would be simple enough if there were not two kinds of each; yet this difficulty vanishes if we treat NORTH Latitudes and EAST Longitudes as ordinary figures, and resort to the special device of using figure-words beginning with an S to denote SOUTH Latitudes and WEST Longitudes [and no special device would be needed if we realized exactly what part of the Globe each place occupies].

1. Constantinople is North Latitude 41° [*ready*] and East Longitude 28° [*knave*]. CONSTANTINOPLE .. constant..always ready..*ready*... red... blood red...assassin...*knave*.

2. New York City is North Latitude $40^{\circ}52'$ [*horse line*] and West Longitude $73^{\circ}59'$ [*scheme all happy*]. NEW YORK CITY...Manhattan...hat...band...line...*a horse line*...steam horse...railway...submarine railway...*schemes all happy*.

3. Sydney, South Latitude $33^{\circ}51'$ [*Simoom light*] and East Longitude $151^{\circ}11'$ [*dull eyed idiot*]. SYDNEY...antipodes...anti...against...disaster sighs...*Simoom light*...light...eye...*dull eyed idiot*.

4. Rio de Janeiro. South Latitude $22^{\circ}54'$ [*sea onion healer*] and West Longitude $43^{\circ}9'$ [*swarm by*]. RIO DE JANEIRO...row...garden bed...onion bed...*sea onion healer*...cough healer...honey...bees...*swarm by*.
 [3] Let the Pupil note that we always give the Latitude first and Longitude last. Sometimes a compound date-word will express the Latitude and Longitude together. "*A ready knave*" would have answered in the first example, &c.

THE HIGHER ANALYSIS AND SYNTHESIS APPLIED TO LAW.

I.—See page 147 for remarks on Higher Analysis.

II.—The relations involved in the Higher Analysis and Synthesis are between *sentences* or *propositions*. And, although the relations are sometimes Analytic, yet, usually, they are Synthetic, made up of one or several intermediates, yet it is often extremely difficult to indicate them in detail. The mind feels them, as it were, but cannot always exactly define them or point them out to others, because they are often so complex and subtle. This extension of ordinary Analysis and Synthesis can only be effectively made by those who conceive the relations themselves. It is never, or rarely, felt or appreciated in the case of the work of others. And yet this Higher Analysis and Synthesis is of immense power in cases practically unmanageable by the unassisted Natural Memory.

III.—Suppose a Law Student wishes to memorise the following:—

MARRIED WOMEN'S PROPERTY ACT.

33 & 34 Vict., c. 93.

Here are four things to be connected in the memory. He has to remember. (1) The Title of the Act [Married Women's Property Act]. (2) The years of the Parliamentary Session in which it was passed [33 & 34]. (3) The name of the reigning Sovereign [Victoria]; and (4) The chapter (c.) of the Act [93]. If a Pupil has one or five hundred of these Acts to fix in mind, together with the highly technical symbols used, he will need genuine aid, and this is what the Higher Analysis and Synthesis offer him.

IV.—The first thing we do in dealing with a memory task is to reduce the memory problem to its lowest terms, to minimise as much as possible the work to be done. (1) Now we see in the symbolic representation of these Acts [33 & 34 Vict., c. 93], that the number of the chapter [c.] always comes *last*. Hence we can use a word to express that number, and we can safely omit the word "chapter," as the last

number can mean nothing else. (2) If we express the Sovereign's name [by itself and number, or by its Homophone or Double Inclusion], in all other cases, we can safely omit the Royal name in the case of the Victorian Acts, as we know, from the omission of it, Victoria's must be understood. (3) To express the number of the chapter or of the year or years of the reign, we can use words expressing the figures exactly, or words containing four or more sounded consonants of which we consider or reckon only the *first two*, and where there are three figures we will generally use words expressing three figures only. (4) Many simple devices can be used—as, for instance, to express the 6th & 7th of the Victorian era, we could use the word *Showing*; the 67th year could not be meant, as that number has not yet been reached, and therefore it must mean the 6th & 7th. And sometimes any of the above or other devices may, in special cases, be violated, rather than reject a good memorising phrase, as, "Humbug" might be used to express 8, when otherwise it would mean 897, according to the above. To express the 29th year of reign, "*Nobody*" could be used, as it could not mean 391.

V.—Let us now deal with 33 & 34 Vict., c. 93. We have seen that we can safely omit Victoria and chapter, or its abbreviation c. All we have to do then is, turn 33 & 34, and 93, into a phrase that will sustain a synthetic relation to the words or title of the Act; viz., "*Married Women's Property Act*." As this Act is in defence of married women's rights, it is in their hands a defensive weapon, a boomerang if you please! And, as Mamma would be understood to mean a species of married woman, i.e. a married woman who is a mother, the following phrase will express the title of the Act by In., and its symbolic expression, and will be readily remembered:

Mamma's marital boomerang!!
3 3 & 3 4 [Vict. c.] 9 3.

VI. MARRIED WOMAN'S PROPERTY ACT, 1874.

37 & 38 Vic., c. 50.

Make less quarrelling!
3 7 [& 38 Vic., c.] 5 0, (18) 7 4

VII. HABEAS CORPUS ACT.

31 Car. II., c. 2.

Might can annoy.
3 1 [Charles II. c.] 2.

When right or wrong doing has succeeded in putting a man in prison, this Act is available for his relief. This memorising phrase is a case of Ex., between the title of the Act and the translation of the figures and symbols.

VIII. NATURALIZATION ACT.

33 Vic., c. 14.

Members transformed.
3 3 & 14.

As naturalization transforms citizens of Foreign States into English citizens, this fact is suggested by In. by the above memorising phrase.

IX. LIBEL ACT.

6 & 7 Vic., c. 96.

Showing Pitch.
6 7 9 6.

- X. STATUTE OF FRAUDS.
29 Car. II., c. 3.
Nobody can humbug.

- XI. CHARITABLE TRUSTEES INCORPORATION ACT.
35 & 36 Vic., c. 24.
Millenium much nearer!

As charitable societies are designed to ameliorate the condition of the people, the result is suggested by In., in the opinion of very sanguine persons, by the above phrase.

- XII. JUDGMENTS.
1 & 2 Vic., c. 110.
To know idiots!
1 & 2 [Vic., c.], 1 10.

Those who think that people who go to law are little better than fools, must hold that the Judgments of the Courts enable us to know the idiots!

- XIII. PUBLIC PARKS ACT.
34 & 35 Vic., c. 13.
Morbid multitudes demonstrating.
3 4 3 5 [Vic., c.] 1 3.

For a pupil who knows the effect and tenor, the contents of the Statutes, it would be only the work of a few hours to frame phrases to enable him to remember the Title, Dates, &c., of hundreds of them. I was told that this Act was designed to give policemen new powers to prevent rioting in Public Parks. If this is so, the above phrase is very appropriate. If it is not, the intelligent Pupil can easily frame another in its stead. In fact, this kind of work is not only very interesting, but very easy, if the Pupil understands the object and meaning of the Acts.

- XIV. FLOGGING GAROTTERS.
26 & 27 Vic., c. 44.
Enjoy a whining roar.
26 2 7 [Vic., c.] 4 4.

When garotters are brought out of their cells to be flogged, they are said to whine and beg piteously, but when the lash is applied, they roar vociferously.

- XV. GOVERNMENT STOCK BOUND BY JUDGMENTS.
3 & 4 Vic., c. 82.
My airy venture!
3 and 4 [Vic., c.] 8 2

A judgment debtor who had invested money in Government Stock, hoping thereby to defeat the claims of his creditors, well might say, My airy venture!

- XVI. STATUTE OF DISTRIBUTIONS.
22 and 23 Car. II., c. 10.
None nimbly "can" distribute.
2 2 and 2 3 Charles II., c. 1 0.

There is sense in this phrase, considering how tediously slow courts moved. Besides, it contains an In. by S.; yet this is quite sufficient

with sentences as with words only, if the Pupil has strengthened his memory by using my lessons as a Memory-Trainer.

XVII INTESTATES, DISTRIBUTION OF EFFECTS OF.

1 Jas. II., c. 17.

Do a "June" outing!

1 Jas. II., c. 17.

I have dealt with this Act as a mere *crammer* would, who merely commits to memory and cares not at all to *understand* his subject!!! There is here no relation between the Title of the Act and the phrase used to help to retain it. In this case, the title must be correlated to the phrase, and the parts of the phrase correlated together, in some such way as follows: INTESSTATE...will not made...made...done...Do...perform...Juniper...JUNE...sixth month...sick monk...indoors...outdoors...OUTING. No amount of repetition could fix these sentences so quickly and so permanently together as correlations memorised. But the true way to memorise these Statutes is to know their meaning and purport, and then it is an easy thing to make appropriate phrases that will never drop out of memory.

[In XVII., one year only is mentioned (1); but in XV., two years are given (22 and 23). If pains are taken to secure recollection of the one-year cases, there will be no need to deal with more than one year in the two-year cases. You will know that another year is to be added—that is, the next higher. This makes the translation much more easy.]

Those who would like another method of memorising the Titles and Dates of Statutes, can in memorising, for instance, "Statute of Frauds, 29 Car. II., c. 3," use the Double Inclusion Can for Charles II., translate 29 into Niobe, and 3 into Hum; and Correlate thus:—FRAUDS...*conjuring tricks...inexhaustible bottle...CAN...waterpot...water...tears...NIOBE...grief...outcries...HUM*. Of course, he could in all such cases try to construct a sentence, usually awkward, like: "Frauds can nab a hymn;" but the parts of such a sentence must be correlated together and thoroughly memorised as FRAUDS...cunning devices...canny...CAN...receiving vessel...catch...NAB...*"nablight"*...light...trifling...serious...HYMN, else it might escape the memory at the very moment it is wanted. Take the case of "Estates Tail, Stat. De Donis, 13 Ed. I., c. 1." Translation of formula:—"A dumb eddy too." Estates tail...tailor...cutter...*"cut off"*...no gift...donum...De Donis...destroy...speechless...*"A dumb EDDY too."* Take the case of "Statute of Uses, 28 Henry VIII., c. 10." Translation of formula:—"Knock (27) a hive (Henry VIII.) twice" (c. 10)...Uses...service...silver service...silver knocker...*"Knock a hive twice."*

Suppose it is the sense of a case, instead of the title of a Statute, which he wants to remember: for instance, the leading case on Easements, "Sury v. Pigott," in which it was decided that a right of water-course is not extinguished by unity of seizin of the two properties between which the navigation runs. whereas a right of way is unless it be "a way of necessity," also that the length of enjoyment which gives a prescriptive right of way by land or water is 20 years. Correlate thus—EASEMENT...well meant...ill meant...surly...SURY...too sure...obstinate...pig-headed...PIGOTT...hot pig...boiled pork...boiled in water...WATER...fire and water...EXTINGUISH...fire engine...get out of the way...WAY...ways and means...mean...necessitous...way of NECESSITY...*"knows no law"*...knows (20).

THE INTERROGATIVE METHOD—*continued.*

Let the Student first analyse by the Interrogative Method *the whole of* "The Seven Ages" *before looking at my Analysis of it*, and then carefully compare his own Analysis with mine, so far as mine goes; and then let him send me his Analysis for criticism.

THE SEVEN AGES.

All the world's a stage,
And all the men and women merely players:
They have their exits and their entrances;
And one man in his time plays many parts,
His acts being seven ages. At first, the infant,
Mewling and puking in his nurse's arms.
And then, the whining school-boy, with his satchel,
And shining morning face, creeping like snail
Unwillingly to school. And then, the lover,
Sighing like furnace, with a woful ballad
Made to his mistress' eyebrow. Then, the soldier,
Full of strange oaths, and bearded like the pard,
Jealous in honour, sudden and quick in quarrel,
Seeking the bubble reputation
Even in the cannon's mouth. And then, the Justice,
In fair round body, with good capon lin'd.
With eyes severe, and beard of formal cut,
Full of wise saws and modern instances;
And so he plays his part. The sixth age shifts
Into the lean and slipper'd pantaloon,
With spectacles on nose, and pouch on side:
His youthful hose well sav'd, a world too wide
For his shrunk shank; and his big manly voice,
Turning again toward childish treble pipes
And whistles in his sound. Last scene of all,
That ends this strange eventful history,
Is second childishness, and mere oblivion;
Sans teeth, sans eyes, sans taste, sans everything.

- (1) How much of the world is a stage?—"All the world's a stage."
(2) The whole of what is a stage?—"All the world's a stage." (3) What is the whole of the world?—"All the world's a stage." (4) If all the world is a stage, who are the players?—"And all the men and women merely players." (5) What portion of men and women are players?—"And all the men and women merely players." (6) What are all the men and women?—"And all the men and women merely players." (7) Are the men and women anything but players?—"And all the men and women merely players." (8) What have these male and female players?—"They have their exits and their entrances." (9) Who have their exits and their entrances?—"They have their exits and their entrances." (10) What are the going off and coming on of actors called?—"They have their exits and their entrances." (11) What assertion is made of the players?—"They have their exits and their entrances." (12) What does one man in his time play?—"And one man in his time plays many parts, his acts being seven ages." (13) When does one man play many parts?—"And one man in his time plays many parts, his acts being seven ages." (14) What does one man do?—"And one man in his time plays many parts, his acts being seven ages." (15) How many parts does one man play?—"And one man in his time plays many parts, his acts being seven

ages." (16) If he plays many parts or characters, what are his acts?—"And one man in his time plays many parts, his acts being *seven ages*." (17) What are seven ages in a man's time?—"And one man in his time plays many parts, his *acts* being seven ages." (18) What is affirmed of a man's acts?—"And one man in his time plays many parts, his acts *being* seven ages." (19) What is the first of the seven ages?—"At first, the *infant*, mewling and puking in his nurse's arms." (20) At what time does the infantile age begin?—"At first, the infant, mewling and puking in his nurse's arms." (21) What is the infant doing?—"At first, the infant, *mewling* and *puking* in his nurse's arms." (22) Where does the infant mewl and puke?—"At first, the infant, mewling and puking in his nurse's arms." (23) In whose arms does he mewl and puke?—"At first the infant mewling and puking in his *nurse's* arms." (24) What are the Shakesperian names for the infantile murmuring and vomiting?—"At first the infant *mewling* and *puking* in his nurse's arms." (25) What age follows that of the infant?—"And then the whining *school-boy*, with his satchel and shining morning face, creeping like snail unwillingly to school." (26) How do you know that the school-boy's age succeeds that of a previous one?—"And then the whining school-boy, with his satchel and shining morning face, creeping like snail unwillingly to school." (27) What is an audible characteristic of the school-boy?—"And then the *whining* school-boy, with his satchel and shining morning face, creeping like snail unwillingly to school." (28) What sort of a boy is the one instanced here?—"And then the whining *school-boy*, with his satchel and shining morning face, creeping like snail unwillingly to school." (29) What does he carry with him?—"And then the whining school-boy, *with his satchel* and shining morning face, creeping like snail unwillingly to school." (30) What kind of a face does he wear?—(31) "And then the whining school-boy, with his satchel and shining *morning face*, creeping like snail unwillingly to school." (32) How is his morning face?—"And then the whining school-boy, with his satchel and *shining* morning face, creeping like snail unwillingly to school." (33) What part of the school-boy's person is said to have a morning shine about it?—"And then the whining school-boy, with his satchel and shining morning *face*, creeping like snail unwillingly to school." (34) How does he move?—"And then the whining school-boy, with his satchel and shining morning face, *creeping* like snail unwillingly to school." (35) What does he creep like?—"And then the whining school-boy with his satchel and shining morning face, creeping like *snail* unwillingly to school." (36) What resemblance do the boy's movements bear to those of the snail?—"And then the whining school-boy, with his satchel and shining morning face, creeping *like snail* unwillingly to school." (37) In what mental condition does he go to school?—"And then the whining school-boy, with his satchel and shining morning face, creeping like snail *unwillingly* to school." (38) Whither goes he unwillingly?—(39) "And then the whining school-boy, with his satchel and shining morning face, creeping like snail unwillingly to *school*." (40) What age succeeds the school-boy's?—"And then the *lover*, sighing like furnace, with a woful ballad, made to his mistress' eyebrow." (41) In what respect does he resemble a furnace?—"And then the lover, *sighing* like furnace, with a woful ballad, made to his mistress' eyebrow." (42) What does the lover's sighing resemble?—"And then the lover, sighing like *furnace*, with a

woful ballad made to his mistress' eyebrow." (43) Does the lover's sighing bear any resemblance to a furnace?—"And then the lover, sighing *like* furnace, with a woful ballad, made to his mistress' eyebrow." (44) Has the lover anything with him?—"And then the lover, sighing *like* furnace, with a woful *ballad*, made to his mistress' eyebrow." (45) What kind of a ballad is it?—"And then the lover, sighing *like* furnace, with a *woful* ballad, made to his mistress' eyebrow." (46) To whose mistress' eyebrow is the lover's ballad made?—"And then the lover, sighing *like* furnace, with a woful ballad, made to *his* mistress' eyebrow." (47) To whose eyebrow is the lover's ballad made?—"And then the lover, sighing *like* furnace, with a woful ballad, made to his *mistress'* eyebrow." (48) To what part of his mistress' face is the lover's ballad made?—"And then the lover, sighing *like* furnace, with a woful ballad made to his mistress' *eyebrow*." (49) How do we know that the soldier's age follows upon the lover's?—"Then the soldier, full of strange oaths, and bearded like the pard; jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth." (50) Who is full of strange oaths?—"Then the *soldier*, full of strange oaths." (51) Is he lavish or sparing of his oaths?—"Then the soldier, *full of strange oaths*." (52) What is he full of?—"Then the soldier full of *strange oaths*." (53) What kind of oaths is the soldier full of?—"Then the soldier full of *strange oaths*." (54) How was he bearded?—"Then the soldier, full of strange oaths and bearded like the *pard*." (55) What relation has the soldier's beard to the (leo)pard's?—"Then the soldier, full of strange oaths and bearded *like* the pard." (56) How is the soldier's face?—"Then the soldier, full of strange oaths and *bearded* like the pard." (57) What is the soldier's attitude in regard to honour?—"Then the soldier, full of strange oaths, and bearded like the pard, *jealous* in honour, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth." (58) In regard to what is he jealous?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in *honour*, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth." (59) How is he affected in regard to quarrelling?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, *sudden* and *quick* in quarrel, seeking the bubble reputation even in the cannon's mouth." (60) In what is he sudden and quick?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in *quarrel*, seeking the bubble reputation even in the cannon's mouth." (61) What does he seek even in the cannon's mouth?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the *bubble reputation* even in the cannon's mouth." (62) Is he anxious for the bubble reputation?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, *seeking* the bubble reputation even in the cannon's mouth." (63) Where does he seek the bubble reputation?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in *the cannon's mouth*." (64) In the mouth of what does he seek the bubble reputation?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in *the cannon's mouth*." (65) In

what part of the cannon does he seek the bubble reputation?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth." (86) How is emphasis given to the fact of his seeking the bubble reputation in the cannon's mouth?—"Then the soldier, full of strange oaths, and bearded like the pard, jealous in honour, sudden and quick in quarrel, seeking the bubble reputation even in the cannon's mouth."

Let the Pupil send me, besides the analysis of the "Seven Ages," at least ten sentences of his own selection dealt with by the Interrogative Method.

In response to numerous requests by pupils preparing for examinations, I have prepared and printed a series of "Coaching" papers on the following subjects [the price for each is 5 shillings, but for *Materia Medica* it is £1, and for *Figure Dictionary* it is 15 pence]:—(1) How to learn Greek—(2) How to learn Latin—(3) How to learn German—(4) How to learn Italian—(5) How to learn French. More than 100 examples of the application of my Method in each of these papers are given dealing with the difficulties Students encounter in learning those languages. I have received many very high encomiums for these papers, as well as for (6) How to learn Chemistry—and (7) How to learn Botany—Part I., on Structural Botany; and (8) Part II., on Systematic Botany, and also on (9) How to learn a Book, as applied to an entire chapter of a Law Book—(10) *Materia Medica*—(11) *Figure Dictionary*, containing numbers from 0 to 1000, each translated into several words. This last is invaluable to those who have to deal with dates and other figures if they have not had time to exercise themselves on the *Figure Alphabet* as much as they should have done.


The Pupil can hand the paper containing only the Name and Dates of Accession of the English Kings since and before the Conqueror, and also the List of Derby Winners with their Dates and the Figures of the Ratio, to their friends, for them to hear them give names and the order both ways in each, with their Dates, as well as the Numbers of the Ratio, and he can write out a list of the French Kings and their dates for his friends to hear him recite them.

HABITUALLY CORRELATING.

Few realise the fact that a new mental habit can be acquired and perfected in vastly less time than a new physical habit. But this habit of making Correlations—being only the doing CONSCIOUSLY that which the mind has always done unconsciously and instinctively, but very slowly and only after numerous repetitions—is acquired more quickly than any other new mental habit. The indirect advantages of acquiring this power are quite as great as the direct advantages. Wherein do the achievements of a Genius differ from those of other men? Not so much in his original endowment with a higher grade of THINKING POWER, as in this, that from his greater SURENESS of Memory all the *pertinent facts of a case* are more *vividly before his intellect* and kept there by his strong concentration when he has occasion to form opinions or draw inferences. Thus, the practice of making Correlations, by accustoming the mind to appropriate and MAKE USE of

acquired facts and ideas, similarly qualifies the ordinary intellect to use to the very best advantage the vast stores of knowledge which my System may have helped to accumulate.

But the grand advantage of making and memorising one's own Correlations, is that soon it will not be necessary to make any more of them. The latent power of the Memory having been fully developed, the new Memory will carry all burdens imposed on it, and retain everything that one cares to remember, except, of course, very complicated matters, where the use of the Method may be needful.

 **NOTICE.**—Learning by *rote* is done by means of many repetitions followed by more reviews. Learning by *comprehension* is accomplished through the *understanding* a subject, perpetually renewed by frequent re-perusals; but a permanent **RETENTION** is only secured by the Art of Never Forgetting, which, if faithfully and perseveringly practised, eventually enables its master to recall *at will* any past knowledge as easily and certainly in the presence of others, as in the quiet of his own library.

PART VI.

HOW TO SECURE

THE CERTAINTY OF NEVER FORGETTING.

I.—It is not to be supposed that the Art of Never Forgetting applies to a time previous to the period in which the Pupil learned the Art. All this portion of his life rests of course upon his unaided Natural Memory, except that the Art of Never Forgetting enables him to recall such previous impressions more quickly than formerly.

II.—The Art of Never Forgetting does not refer, in the early stages of the student's career, to any case in which it has *not been specially applied*, except in an *indirect* manner, and only so far and as fast as his Natural Memory has been strengthened by the System. His Natural Memory, however, has been improved *exactly in proportion* to the pains that he has taken to carry out *all my directions*, and also in the degree that *time* has had its play in giving full development to organic growth. The *Natural Memory becomes more powerful* as the consciousness of In., Ex., and Con. becomes habitually more sharp and well-defined—a result of practice only. The habit of *always* indicating the character of the intermediates of a Correlation, and particularly the habit of *always memorising one's Correlations*,* rapidly develops the Natural Memory—in a way not unlike that in which the observing powers of the portrait painter are strengthened in regard to the lineaments of faces; before he learnt his art, all faces were demarcated by certain general differences, but he now notices individualities and characteristics that for-

* In every case where Correlations are mentioned, the Student could of course use the Interrogative Analysis.

merly entirely escaped his scrutiny. Similarly, the Memo-rist discerning in every mental act *one or more* of the *three memory* relations more markedly and obtrusively than before, the *first impressions* become more strongly cemented together even where the System is not designedly applied, and their *recall* is thereby greatly facilitated. Nor is this all; the practice of *concentrating* the *attention* upon the “extremes” when studying to link them together promotes the power of “concurrence” to an almost unlimited extent. Besides, the agreeable shock of surprise experienced by the student in making Correlations causes him to return to this practice with renewed zest, and always with the *added skill* acquired in previous exercises. And then the habit of *memorising* all his Correlations greatly facilitates making new ones as well as *remembering* them with *constantly diminishing effort*, until at length—not of course whilst learning my System, nor necessarily immediately afterwards, but in due time—in some cases weeks, in other cases months, in very rare exceptional cases perhaps a year—the *making* of Correlations thereby becomes the *remembering* of them; in other words, all *Correlations* are henceforth *self-memorised* !!! —a power for rapid and never-forgetting acquisition not easily estimated and certainly unlikely to be over-estimated.

There is a final stage to which all the diligent cultivators of the Art of Never Forgetting are sure to arrive if they possess average ability, and have never permanently injured their memory and other faculties by dissipation or other perverse habits, and are not thwarted and palsied in all their mental operations by a weak continuity. In this stage, except perhaps for a grand Memory Display, the Natural Memory having become so strong and retentive, Correlations are no longer required. The student having now become a Memory Athlete, his Natural Memory is so vigorous as to enable him to carry any burdens of recollection with perfect ease. This result may be certainly attained by all students of the Art of Never Forgetting, whether old or young, if they faithfully carry out all my instructions, not otherwise.

But this highest possible strengthening of the Natural Memory through the TRAINING power of my System, is not at all necessary in ordinary cases and for ordinary purposes—yet it is always necessary where the Pupil desires to derive the utmost possible benefit from my System. Even if a Pupil never rises above the necessity of *making* and *memorising*

Correlations in all cases where he wishes to remember anything, he can still learn a task by memorized Correlations or Interrogative Analysis in *one-twentieth part* of the time that he could possibly accomplish the same result with *equal thoroughness* by his unassisted Natural Memory.

III.—What then is the meaning of the Certainty of Never Forgetting? It means that if you wish to retain and never lose your hold on ANY FACT WHATEVER, you have an infallible resource for doing so by means of a *memorised Correlation*. This is the veritable philosopher's stone that turns an otherwise EVANESCENT IMPRESSION into the pure gold of a PERMANENT retention.

IV.—It must here be observed that the Art of Never Forgetting, as such and in its own capacity, has nothing whatever to do with the *comprehension* of a study. That is taken for granted throughout. Whatever be the subject-matter under consideration, whether the pupil be listening to a lecture or reading a book, the *understanding* of the lecture or book is assumed—the business of the Memorist commences only when its *Retention* is required. Let no one imagine that my System is a Substitute for grasping the *meaning* and mastering the *facts* and *principles* of any subject. Let the Pupil avail himself of all possible aids for the *understanding* of his Lessons—the assistance of teachers, actual inspection or personal manipulation where possible, and an exhaustive study and pondering of the matter in hand; and when his intellect has in this manner absorbed all the necessary and pertinent ideas of the topic under his consideration, he will then make use of my System to INDELIBLY IMPRESS all these facts, principles, and ideas in his Memory. To illustrate my views in detail let me remark that there are three grades of Memory: (1) Mere verbal memory, or learning by *Rote*. (2) The memory of *Comprehension*. (3) The memory of *Retention*.

(1) Learning by ROTE is learning by heart by means of endless repetition. Acquisition in this way is done by brute force of memory, without any aid from intellectual contact with the subject-matter itself. It is simply committing to memory *words* without any pretence of absorbing or assimilating the ideas they represent, their meanings, or the relation they sustain to each other. This is cramming. The crammer is indifferent how ignorant he may really be or continue, if he only succeed in passing the ordeal of examination. And here is seen one of the greatest sins of Mnemonics; by means of its Key, a youth with a first-rate Natural Memory, can string together a few

facts, events, words, or sentences, that enable him to *show off* for a short time without the slightest genuine *knowledge* of the subject-matter of the display.

A Pupil of mine who had given up the "associations" of Mnemonics in despair, but who had learned how to use its key, finding how easily he could *make and memorise Correlations*, actually made seven mnemonic keys of 100 words each on the principle of an Analytic Series. He used four of these keys in History, and three of them and the Analytic Series in Chemistry and Political Economy! His excuse for violating the principles of my System was that he was in a hurry, and that, whereas he had failed in three previous examinations with mnemonic aid, and that of good coaches, he succeeded at last through the assistance of my System, because Correlations prevented his forgetting any of the facts correlated! But at what a sacrifice of time and sense he purchased this victory! To connect all the statements of Fact or Proposition he wished to remember he had to select a Suggestive Word in each of them and correlate it to his Keys, which sustained no relation whatever to the Subject-Matter!!! How much more easily he could have correlated those Suggestive Words together, and thus have preserved the Original Connection of ideas! Instead of maintaining the Sequence of the Scientific Development of the Subjects, he made each Proposition an Isolated Fact, bearing no relation to anything except these outside and unconnected Keys!!!—with the inevitable consequence of being obliged to recall to mind all the words in a Key until he came to the particular Fact or Proposition he required! and it would not have obviated this difficulty if each of his keys had spelt the figures from 1 up to 100. When I pointed out his stupendous blunder he acknowledged his mistake, and confessed that, if he had followed my Method pure and simple, he could have done his work in half the time he had spent upon it and have intelligently *mastered the subjects themselves*, instead of merely *memorising* an enormous mass of undigested and unrelated facts, as is always the case where a mnemonic "Wheelbarrow," *alias* Key, is used.

Suppose the learner by rote attempts to study Geometry. He commits the demonstrations to memory, and he has no more conception of what the figures, lines, and angles, and their relations mean than he has of copies of hieroglyphics. Instead of first thoroughly *studying* and thinking out the import of each Definition, Postulate, and Axiom, and then learning the Demonstrations by Analysis, since the successive steps are always Inclusions or Exclusions, he does not strive to understand them at all, but merely memorises everything *verbatim*, with the certainty of soon forgetting all he has learned. Suppose he takes up Structural Botany, and he has got to the Flower, he reads that the Flower has four Whorls or Parts—(1) The Calyx, (2) Corolla, (3) Stamens, and (4) Pistil; and that the Calyx is composed of leaves called Sepals—the Corolla of Petals—the Stamen of the Filament, Anther, and Pollen; and the Pistil of the Ovary, Style, and Stigma. He wants to remember all these new and wholly unfamiliar facts and these technical words; and he does so by repeating them over and over again, parrot-like, until he can say them by rote. They must be repeated until the mind succeeds in forming *unconscious* Correlations—the weakest of all—mere *sound* Inclusions and *sound* Concurrences!!!—no In-

clusions or Exclusions of *meaning*, nor any Concurrences of Sense or Ideas ; nor are they consciously repeated forward and backward with a recapitulation of both extremes ! ! The *things themselves* have not been carefully studied and closely inspected, nor have the *descriptive words* become connected by concurrence with the *facts* for which they stand. The case is almost on all fours with trying to learn mere gibberish—"full of sound and fury, *signifying* nothing" No wonder, then, that learning by rote produces only short-lived impressions. Such a course promotes mind-wandering ; it leaves no permanent trace, and it usually breaks down the health. It is not study ; for long ago Montaigne taught that learning by heart is not *learning*.

(2) The Memory of COMPREHENSION is that which follows or survives the *understanding* of a subject. This method of acquiring knowledge is taught in Kindergarten Schools and elsewhere by Object Lessons. It is superior in every way to learning by *rote*. The student of this method, if attempting to learn the aforesaid Botany lesson, would insist on having real Flowers before him. He would dissect many of them—identifying each part as he proceeded—until by dint of *observations repeated*, and the recalling of the technical names in connection with the observations, he fixed the special terms and their applications clearly in mind. This is the true course to pursue in any new scientific study. Yet it cannot be relied upon except by those having unusually trustworthy Natural Memories. The retention is more permanent than in the case of learning by rote. Still, perpetual reviews are necessary to conserve the recollection of the facts learned by the method of Comprehension. A poor memory may receive a message, be able to repeat its import and details on the spot, and yet forget half of them before a street is crossed or ten minutes have elapsed. Even supposing a pupil perfectly *understands* a definition, description, experiment, or demonstration, the relation which one part of a subject bears to another, the part to the whole and the whole to the part, yet this is no assurance that he will permanently or for any considerable period *retain* all this knowledge. A reader may be able to tell you the contents of a chapter or even a whole book *immediately* after reading it, who invariably forgets all about it the next day, week, month, or year ! ! There is always a memory, however evanescent, that follows the contact by rote with any subject—a more prolonged memory that ensues from the *comprehension* of a subject ; but a permanent *retention* is only secured, alike by the best or worst natural memories, by the Art of Never Forgetting.

(3) The memory of RETENTION—

Let me first enumerate a few Pupils who are not usually prepared to proceed to apply my System to their studies or business. (1) *The over-confident, sharp Pupil*.—The dull Pupil, if really ambitious and persistent, usually wins a fine success. Why ? He feels the *need of guidance and accepts it*, and patiently and perseveringly works out all my exercises *exactly as prescribed*. He may progress slowly at first, but he soon acquires new strength, and at length outstrips the over-confident, sharp Pupil. Why ? The latter believes he *knows* what he wants ; not having gone through the System, and not having experienced its benefits as a Memory-Trainer, he judges superficially, omits the very exercises that he most needs, or neglects all alike ; and, when he finds that he has not received the new power that my Testimonials

avouch, he is half inclined to think that they are exaggerated, until he finds he has been outrun by dull Pupils. His fault was that he did not do what he was told to do in the way he was told to do it. In one sense, my Pupils, to get the full power of my System, must be obedient learners, or else it is not *my* System that they have learned!! (2) *Those who are fancy-ridden or dreamers.* Their imagination seems to be perpetually stimulated to create difficulties, to conjure up *theoretical* objections, and to go mad on impossible cases. Instead of learning each lesson as it has been given, they set themselves up as teachers or as critics of my System; they arrive at this lesson with no true conception of the previous lessons, and they have received very little benefit at all from the exercises. Their best course would be to turn back, lay aside their own imaginings, and faithfully carry out all my directions; and if they can really do this, they can finish my System with the usual advantages. When they settle down to study, they find it difficult to do so because of Mind-wandering. When such as these sometimes claim that they have spent from 10 to 20 hours on each lesson!! I have no trouble in satisfying them at an interview that they really did not devote more than two hours to each lesson, the rest of the time having been given up to day-dreaming!! For the purpose of mastering my Memory Lessons, the worst mind-wanderer can sufficiently strengthen his Attention by reciting, every day, both ways, the Analytic Series in the First Lesson, whilst going through the course. Memorising Correlations is better practice still, if they are memorised in the exact manner I prescribe. (3) Those who imagine that they have really not had the time or health to study and learn the lessons. As to lack of time, I can conceive of no one in want of time to improve his memory, if he be in earnest. The busiest men always have the most leisure. It is only the unmethodical who know not how to use their spare time. Many of my best Pupils have learned my System in going to and in returning from business—or in those numerous snatches of time that are usually absolutely wasted. As to lack of health, if the Pupil is no worse than when he ordered the lessons, he still has health good enough to learn them. Of course, if he is downright ill, he must postpone study till he is better. As to health generally, it seems to be almost universally overlooked. This is wrong every way. Presuming that due preparation is first made for the future world, it is certain that no one can do justice to this world who neglects his health. Whether for business, pleasure, or study, everyone should maintain himself in the perfect condition of a Derby Horse winner, if he hopes to *get all out of life that there is in it*, consistently with the highest moral and religious ideal. How many hours a day can a man study if he is in perfect health? Not 12, 14, or 16 hours, of the 24, as ambitious students suppose, who are determined to ruin their health by overwork—but from six to eight hours are all that the best-endowed and healthiest student can advantageously devote to study; and, in this case, there should be a rest of from one to two hours between every two hours' study. In this way, the highly strained attention has a chance to recuperate, and a return to study is made with reinvigorated brain and unflagging energies. If the student under exceptional circumstances must study more than six or eight hours per day, let there be also frequent changes from one study to another, as unlike each other as possible, so as to call into action other faculties not exerted in the previous lesson. And let

there be plenty of exercise that promotes the circulation and perspiration, but no exercise that strains or wearies. These six or eight hours of study secure greater progress than can be possibly gained under the usual conditions. And the rest between the study hours need not all be devoted to exercise or amusement—but a portion might be given to learning or reviewing my System. This would call into requisition faculties and powers not used in the regular studies, and hence it would be no task or burden, but a recreation that would greatly increase the acquiring and retaining powers during the working hours. To show that the foregoing views of health are sound, I may add that I have received many Testimonials from University Graduates, admitting that my recommendations in regard to health and the amount and mode of daily study, together with my Art of Never Forgetting, had been of more real service to them than all their College studies. One Senior Wrangler says it was 11 years from the time he resolved to become a Senior Wrangler till he realised his ambition; that he studied during Term time, for all these years, from 12 to 16 hours daily, and utterly ruined his health by this ill-directed labour; and he adds, that if he had had the benefit of my Art at the outset, and had followed my directions in regard to health, the manner and time of study, he could have achieved the same proficiency in three years, and saved his health into the bargain!!! (4) Those who come to the study of my System in an exhausted, worn-out condition. Such persons after a hard day's work, and a long evening of other study or excitement or dissipation, take up my lessons just before retiring!! With brains used up or enfeebled to the lowest minimum, they hope to learn from the printed page!! Impossible—They should exercise a little will-power and retire one or two hours earlier than is their wont, and then rising an hour earlier than usual, give attention to my lessons when their minds are fresh and rested, and in a condition to absorb new knowledge. (5) Those who instead of first mastering my System, before attempting to apply it, hope to save time by trying to *learn it whilst applying it* to their studies!! This is insanity, and it almost never succeeds. The Pupil has to learn an entirely new System—altogether different from any Artificial System, or his own previous method of learning—and, to assimilate this new Method, he must have practice in it at first with *no other aim* except to understand it and to grow *familiar with it*. As well undertake to learn arithmetic whilst performing the duties of a bookkeeper!! No, he must first require considerable dexterity in arithmetical rules before he attempts the task of a bookkeeper. And before applying my System, he must in like manner *know* it, and be facile in its methods. This only requires a few hours of genuine study on each Lesson, not weeks or months; and when it has become thus mastered, the Pupil can accomplish by its aid as much in one week as he could without it in many weeks or months. However much pressed for time a candidate for an examination may be, or however near it may be, my advice always is, “Either master my System *first* and then resume your work of preparation, or else postpone all thought of my System till the examination is over.” The student must be in earnest with my System—it does no good to flirt with it. (6) Those who have tried to learn my System by *rote*, or by the mnemonical methods of story-telling or picture-making, or by the jaw-breaking Abracadabras of Dr. Grey. Strange as *it may seem*, the number who do this is alto-

gether too large. Not long since, a teacher of a Private School actually spent three hours each day for three weeks trying to make pictures between each pair of words in an Analytic Series!!! He was trying to learn by post, and at last he called upon me for an explanation why he could not learn that series in 54 hours when I claimed it could be done in from one to three hours! After pointing out that he had tried to learn it in his or the mnemonical way, and *not in mine*, I proceeded to go over the three laws with him; and then, in less than two hours all told, he had perfectly learned the 100 words by my Method. Yet, when he first called, he stoutly insisted that he had followed my Method!!

To show how impossible it is for some people to *understand*, much more to *adopt*, new ideas, I may allude to the case of a recent Pupil, who had been, in youth, drilled in the mnemonical system of Dr. Grey. He found it difficult to learn my System because he was all the time trying to translate it into the barbarous jargon of Grey's *Memoria Technica*!!! I gave an illustration of the preposterous absurdity of Grey's System in the Knight's Tour. To show how twisted and contorted a mind must be that can use this method in adult years, I here add Grey's Formula for memorising the Dates of the Accession of the English Kings, from the Conqueror to George III.—

Wil-consau Ruffkoi Henrag. —————

Stephbil & Hensécbuf Ricbein Jann Hethdas & Eddoid.

Edsctyp Edtertes Risetoip Hefotoun Hefifádque.

Hénsifed Edquarfauz Efi-Rokt Hensépseil Henoclyn.

Edsexlos Marylut Elsluk Jamsyd Caroprímæd.

Carsecsook Jamæif Wilseik An, yb Gebó—doi-sy.

A Pupil sometimes complains that he cannot make Correlations (he cannot have really tried) and so he says he has learned mine; but, instead of doing so as I prescribe, he has sometimes repeated the two extremes by rote, and totally disregarded the intermediates whilst pretending to learn the Correlations!! No wonder, when such a Pupil has finished, that he cannot do much more in the same time than he could before he looked at my System! And this leads me to say that apparently many persons have not derived sufficient mental discipline from school or college to enable them to learn any new art *wholly by themselves*. Such persons are impatient to get to the end of the journey before having travelled half the distance! Although I tell them in my Prospectus and Lessons over and over again that it is from DOING the EXERCISES that the new power comes, yet these warnings fall unheeded—they never think of them—they slight the exercises or never do them at all, or never do them in my way, and thus they have not acquired the power spoken of in my Testimonials.

(7) Those who have merely learned the exercises without having absorbed the PRINCIPLES that presided over them, and who hence lack the power of applying the System to any case not mentioned in these Lessons! They are like some timid doctors who can never prescribe for a patient unless they can find a medical report giving a case having exactly the symptoms their patient exhibits; or like case-lawyers who can never argue or advise from legal principles, but only from parallel cases where the facts were precisely similar to those in the case before them. The examples in my lessons are, however, so varied, that the dullest Pupil must find any case provided for, if he carefully re-ex-

amines the lessons. Although I give many illustrations of its application to remembering Proper Names in Synthesis, yet I receive occasional inquiries from correspondents in these words, "Kindly tell me how I am to remember Proper Names when I am introduced to strangers!" An actor recently said, "I find no help in your System for remembering 'cues';" yet I had given him a practical illustration in the case of the Macready Anecdote. Another says, "I can use your system in all my wants, except how to learn prose and poetry," yet he has had the application of my Method to learning 15 unconnected sentences!!! Wherein consists the difference between learning 15 unrelated sentences, and 25 consecutive paragraphs or stanzas or verses of poetry, except that the verses or paragraphs may be long; the principle involved is exactly the same in both cases. And the same reply is applicable to persons who cannot see how my System applies to learning rules of grammar, descriptions of muscles, arteries or diseases in medicine. This incompleteness to see how the principle that governs an example already given is to be applied to new cases, arises from lack of reflection, lack of use of the reason that human beings are supposed to possess. However, this inability quickly vanishes when the Pupil reviews all my Lessons and incessantly asks himself, as he proceeds, "What other cases can I apply this principle to?"

(8) Those who think they can, by the use of my System, at the commencement of professional study, absorb 50 or 60 pages per day of new and unfamiliar reading!!! Only a miracle could enable them to do so. In fact, no mistake is more fatal than for the student to imagine he can *rapidly* read and absorb the ideas in his *first* Law, Medical or Science work!!! The mastery of *one* book gives him the *use and benefit of all the ideas of that work* in his subsequent reading in the same profession. The last few books of his professional course he can read rapidly, but never the first, second or third. If the medical student really masters Anatomy and Physiology, he will find that most of his subsequent reading either makes use of the knowledge derived from those subjects, or that it dovetails in with it. If the Law student masters Contracts at the outset, he will find all his subsequent reading easier. Thus, it is recorded of Lord St. Leonards that, having (as Sir Edward Sugden) been asked by Sir T. F. Buxton what was the SECRET OF HIS SUCCESS; his answer was, "I resolved, when beginning to read Law, to make everything I acquired *perfectly my own*, and never to go to a *second* thing till I had entirely accomplished the *first*. Many of my competitors *read as much in a day, as I read in a week!!!* But, at the end of twelve months, my knowledge was as fresh as on the day it was acquired, *whilst theirs had glided away from their recollection.*" ("Memoirs of Sir T. F. Buxton," chap. xxiv.)

Supposing that the Pupil, having arrived at this place in this Lesson, has really qualified himself to proceed, I will add here what I have said before very many times, that my System presupposes the *comprehension* of a subject. That is not all. I take it for granted in this Lesson that the Pupil has carried out all my instructions in the preceding Lessons, and that he has thus already attained increased RETENTIVENESS from my System as a Memory-TRAINER. These facts being assumed, Correlations step in and photograph the *understanding* of it permanently on his memory. Suppose the Pupil has understood the Lesson on the Flower,

he can at once identify and name each part of it. He has looked up the derivation of the technical terms, and he has thought out the inclusions involved in the derived and original meanings, and he has assimilated the reasons why these terms are used. At length he proceeds to fix these terms in his memory by means of Correlations. What has been accomplished by the *comprehension* of a subject? There has been made a vivid First Impression. The relation of each part to the whole, and of the whole to the parts, has been understood; there has been a dovetailing, an intertwining of all the new ideas, and of all the fresh knowledge, into and amongst the old ideas and old knowledge already stored up in the mind. The things themselves, the facts and their relations, are what are thought of and considered; and although words—in this case not mere words, but truly the representatives of things—are used in Correlations, yet, when memorised, there has resulted a CONSOLIDATION of the facts and ideas regarding the matter under consideration. To use a crude illustration, it may be said the complete and perfect understanding of a subject has created a heat in the brain, and the knowledge lies amongst its elements, like melted lead in the crucible over the fire; and instead of its being left there to oxidise into scum or dross,* Correlations pour the molten ore into moulds, that fashion it as it solidifies into any *permanent* shape required.

To the Student commencing the study of Botany there is one word that is "well known"—the word Flower. To this he attaches in a chain the four whorls, or successive principal parts of the Flower, by means of Correlations, memorising each one as soon as he makes it. Although I have over and over again insisted on the proper method of memorising a Correlation, yet *all* my Pupils do not practise my Method. But no Correlation is memorised unless the Pupil, after reading it over, then turns away and repeats from *memory* [not *reading* it over and over again!!] the Extremes and Intermediates, forwards and *backwards*, from three to six times each way, and then recapitulates the two Extremes, always repeating the Correlation more *rapidly* each time than before. More pains than this is rarely, if ever, necessary, even in the case of the weakest memory, even during the period of *Memory-Training*; and in no case is it necessary after the Pupil has strengthened and invigorated his memory by a sufficient amount of practice. To Flower he correlates Calyx, Calyx to Corolla, Corolla to Stamens, and Stamens to Pistil, thus: [or, better still, makes and memorises his own Correlations in this as in all other cases]—

FLOWER...bread...bread-provider...caterer... CALYX...licks...tongue... voice...many voices...chorus...COROLLA...Rolla...Peruvian Hero...Peruvian bark...tonic...staying power...STAMENS...stays...ropes...pulley...pull...trigger...pistol...PISTIL. The Pupil might repeat the words by rote—Flower, Calyx, Corolla, Stamens, Pistil, a thousand times!!!! this would not make so definite and vivid an impression on his memory as the memorising of the connecting Correlations would, a feat of a few minutes only. After he has memorised the Correlations that unite the four parts together, he then correlates to each part the sub-parts that belong to each, thus: CALYX...licker...scourge...criminals...pals...SEPALS. And to Corolla he correlates its component parts, thus: COROLLA...rol-

* Dr. Bain says:—"It is quite possible to read so as to comprehend the drift of a book and yet forget it entirely."

licking. frolicsome. lambs. pet-lambs. PETALS. And to Stamens he correlates its component parts, thus: STAMENS. mendicant. rugged dress. habiliment. FILAMENT. full. organ pipe. anthem. ANTHERS. Polyanthus. POLLEN. And to Pistil he correlates its component parts, thus: PISTIL. shot. Shotover. OVARY. vary. fashion. STYLE. stylus. lustre. honour. disgrace. STIGMA.

Suppose the Student is studying Anatomy, he has the pictures in the text-book and the SKELETON before him to enable him to get the correct impression of the different parts of it. And when he has mastered the theory and details, he wishes to impress them permanently on his memory. There are only two methods possible—as stated in my Prospectus:—

(1) The first is the traditional method of learning by rote or endless repetition. A celebrated coach in Anatomy says that no one can learn Anatomy until he has learned and *forgotten* it from three to seven times!! In learning any book in this way, each sentence would be repeated over and over again, and then reviewed and relearned and forgotten and learned again! and then at last the Pupil, if he possessed a first-rate *cramming* memory, might answer questions on it, but would be utterly unable to begin at the first section and go on and give the contents of each succeeding section till the close. In learning a book by rote, the number of times that each sentence and section are repeated, if actually written out and printed, would doubtless cover 5,000 to 50,000 or more pages!—and even then the Pupil passes his examination, if he really does “pass,” partly by luck and partly by merit; and all his life he is constantly referring to it, and repeating it, and studying it, over and over again—showing really that he possesses little more than a Reference Memory in regard to it!! But let us be candid and confess the truth; tens of thousands every year and during successive years try the various professions—law, medicine, divinity, or sciences, history, &c., &c.—and utterly fail to “pass,” even respectably, because they lack the extraordinary MEMORY necessary to acquire knowledge by rote.

(1) What a prodigious saving of time, and what a different result, when the Pupil applies my Art to the study of Anatomy! After first getting a clear idea of the matter he is dealing with, he then correlates together the principal grand divisions of the subject—(1) Trunk, (2) Cranium, (3) Extremities (arms and legs), and (4) Unclassified bones. Beginning with the word “Bones” as the Best Known and the subject-matter under consideration, he proceeds thus: BONES...breastbone...breast...chest...TRUNK...elephant's trunk...head...CRANIUM...top...bottom...EXTREMITIES...extremes...beyond rules...unclassifiable...UNCLASSIFIED BONES. When he has memorised these Correlations, he can recall the four grand divisions, forwards or backwards. He then proceeds to correlate together all the leading points connected with the first division. There are 33 vertebræ in the trunk or spine. He fixes this fact thus: TRUNK...box...stone box...MUMMY [33]. He then correlates the sub-parts together thus: TRUNK...travelling convenience...serviceable...CERVICAL...service...pecuniary service...endorsement...DORSAL...dormitory...sleeping apartment...slumber...LUMBAR...barrel...barrels of flour...sacks of flour...SACRAL...sacrifice...a cock to Æsculapius...COCCYGEAL. When he has thoroughly memorised these Correlations, he then deals with each sub-part thus: CERVICAL...neck

...neck yoke...**YOKE** [7]. In this way he fixes the number of bones or vertebrae in the Cervical region, and in a similar way he deals with the number of bones in the other parts. Then taking the word *Vertebra* as his "best known," he correlates to it all there is to be known about it, as the Centrum, Neural ring, Processes, &c., &c., &c. When he finishes Anatomy in this thorough manner, he *knows* it; and he never has to learn it again or review it; and he has spent upon it *but one-half the time* he would have spent upon it if learning by rote, with the certainty in that case of having to learn and forget it three or six times more!!!

Although this thorough method of imprinting impressions takes the *beginner* considerable time, yet he could not in four times the amount of that time make the same permanent impression on his memory by endless repetitions. But this is not all. When he has applied my System in the above way for one or two weeks, he can then accomplish as much in one week as he could without it in a month—with the result of soon forgetting what he had learned by rote, and never forgetting what he had learned by my System.

If the Pupil, in endeavouring to understand the subject-matter of his study, cannot use his natural senses, he must use his intellect to secure the meaning or comprehension of it, and here he must incessantly use the method pointed out in Predicating Correlation, and look at the new ideas on all sides of them to make sure that he understands them. If he is learning Geography, he must carefully study the maps—even copy them—or, what is better still, try to copy them from memory, and then compare his ideal copy with the original map, until he can make a nearly perfect map himself from memory. When he has thus got a correct idea of the Counties of Ireland, for instance, he could then proceed in impressing them on his memory by memorizing the following Correlations:—

COUNTIES IN IRELAND.

FOUR PROVINCES.

Ireland...Irish frieze...overcoat...*Ulster*...stir...*Leinster*...lend...money...*Munster*...Cork...no weight...naught...*Connaught*.
Ulster...Ulric Zwingle...preacher...pew (9 counties).
Leinster...spinster...Diana (12 counties).
Munster...minster...huge (6 counties).
Connaught...know nothing...know all...all (5 counties).

ULSTER... cloak... fur trimmed... trim... *Antrim*... ant hill... crowded... London... *Londonderry*... done... don... *Donegal*... galling... tyrannical... *Tyrone*... throne... firmly established... *Fermanagh*... man... *Cavan*... van... fair... many gain... *Monaghan*... agony... poisoned arrows... arms... *Armagh*... armed... light armed... feather... *Down* (... soft... lenient... *Leinster*).

LEINSTER... lint... wounds... cries... loud... *Louth*... mouth... carnivorous... meat... *Meath*... east... *Westmeath*... sheath... long sword... *Longford*... long number... count... *King's County*... *Queen's County*... crown... gold... gild... *Kildare*... daring... knock down... double knock... *Dublin*... double wick... *Wicklowlow*... burnt low... candle wax... *Wexford*... vex... insult... vulgar... low... *Carlow*... laid low... killed... *Kilkenny* (... any man... man... *Munster*).

MUNSTER... monster... dragon tail... tip... *Tipperary*... dip in water... *Waterford*... swim... safety belt... *Cork*... bottle... wine... sherry... *Kerry*... *Kerry* cow... *Jersey* cow... small... limited... *Limerick*... rick... on fire... glare... *Clare* (... clairvoyant... nothing seen... *Connaught*).

CONNAUGHT... canoe... boat... galley... *Galway*... may... *Mayo*... may go... *Sligo*... sly... creeping... stepping lightly... *Leitrim*... rim... cup... old China... common delf... *Roscommon*.

Of course the towns in each county may be dealt with in a similar manner, for instance :—*ANTRIM*... *Antrim*... interim... in the meantime... race... against time... fast... *Belfast*... fast growing... fungus... *Carrickfergus*... hay carrier hayfork... pole... spear... arm... *Glenarm*... armed men... *Ballymena*... *Ballymoney*... *Ballycastle*.

If the subject is intellectual and not in any way directly addressed to the senses, as in History, Political Economy, Logic, &c., &c., the Pupil must secure the *comprehension* of the subject by making abstracts of it in his own language, as set forth hereafter.

A few words on three topics not heretofore fully considered :

I.—RETAINING THE CONTENTS OF A BOOK IN ONE READING :—

- (1) You will not read the book with the *rapidity* with which some young ladies are said to devour the latest novel! They are often suspected of skipping pages at a time in order to discover the

different stages of a plot, until a thoroughly aroused curiosity compels them to hasten at once to the last chapter to fall upon the dénouement. This is not the style of perusal I contemplate.

- (2) Nor is it to be supposed because you know how the method is to be applied that it will therefore work itself. It has to be *applied* carefully and methodically. This necessarily demands a little time. Those who possess good health and good continuity, and a mastery of the System, accomplish the retention of a work in vastly less time than would be possible for them without my System, and the study has been a pleasure and never a task. On the other hand, those who are in the possession of poor health or of weak concentration, or who are overburdened with business anxieties, domestic cares, or competitive worries, would very seldom, if ever, master any book in the ordinary way by *mere repetition*. These persons are extremely unfavourably situated to do justice to my System, and it costs them more time and trouble to master any book than the former class. A student admitted that he had carefully read a manual of English History completely through sixteen times and then failed in the examination. To have obtained a lasting knowledge of this History by my method would probably have occupied him as long as he was formerly engaged in two or three of the sixteen fruitless perusals of it. There is, however, only this difference between this unfortunate student and the great majority of those who succeed in the examinations through *cramming*. He forgot all his historical knowledge *before* the examination—they usually forget theirs *shortly after*! In fact, a student or a man in advanced years who has really mastered any book so that he never has to refer to it again is a wonder! Take the memories of members of the learned professions—they are usually only REFERENCE memories! They know where to *find* the coveted knowledge, but they do not possess it or retain it in their minds. On the other hand, the student who masters a book by my method *really knows* the contents of it, and he is thus enabled to devote to other purposes an enormous amount of time in the future that other people have to spend in *perpetually refreshing* their superficial acquirements. And this is to be added, that the average student who has carried out *all* my instructions can even *now* learn as much by my Method in any stated time as he could learn without my Method, and *with equal thoroughness*, in many, many times as long a period! And if any one who has been pressed for time or who has been in a panic about an impending examination, or who has been too much troubled with Discontinuity, too ill in general health, or too idle, to do more than superficially glance at my lessons—if any such person doubts his competency to accomplish as much as the diligent student of average ability has done, then let him turn back and really and truly MASTER my System [for he does not even KNOW what my System is, unless he has faithfully carried out to the very letter all my instructions], and then and not before he will probably find that the achievements of the average diligent student of my System are quite within the easy range and scope of his own powers.

- (3) In regard to the *subject-matter* of the book, you do not care to occupy yourself with what you are already familiar, and in most books there are a great many things that you already know. In many works, too, there is a great deal of padding-matter inserted to increase the bulk of the book, and possessing no permanent interest. There is also very much *repetition*—the same matter, in a new dress, is reintroduced for the sake of additional comments or applications. You do not trouble yourself with these iterations. The contents of a book which demand your attention are the IDEAS which are NEW to you, or the NEW USES made of familiar ideas.

Students who have not learned to exercise any independent thought often confess that in reading any book they are always in a maze. One thing seems just as important as another. To them the wheat looks exactly like the chaff. As an illustration that the power of Analysis is entirely wanting in many cases, I may mention that I once received a letter in which the writer had literally copied one of my full page advertisements, and then added, "Please send me what relates to the above!" A modicum of mental training would have led him to say, "Kindly send me your Prospectus."


The power to discriminate between the important and the unimportant is greatly increased by making Abstracts of Essays. A great authority on education says, "Any work that *deserves thorough study*, deserves the labour of making an Abstract; *without which indeed the study is not thorough*." Let the ambitious student make an Abstract of any chapter of John Stuart Mill's Logic, and then compare his work with the Analysis of this same chapter by the Rev. A. H. Killick (published by Longmans), and he will at once see the enormous difference between the essentials and the non-essentials—the difference between the subject of discussion and the explanation or exposition of it. The student's abstract, if printed, would extend over twenty to thirty pages. Mr. Killick's only occupies two or five pages. But do not reverse the process and read Mr. Killick's Analysis first, and then make your Abstract. The latter, however, is *the easier, the usual and the useless* method. Let the student continue this comparison till he attains very nearly the brevity and discrimination displayed by Mr. Killick. Or, if he prefers History, let him make an Abstract of any chapter of Green's Short History of the English People, and then compare his digest with that of Mr. C. W. A. Tait's Analysis of the same chapter (published by Macmillan & Co.). It would be a capital training for the student to abstract the whole of Green's Work and compare his abridgment of each chapter with that of Mr. Tait. After considerable practice in this way in making Abstracts and *comparing his work with that of such Masterly Abstractors* as Dr. Killick and Mr. Tait, the student is prepared to make abstracts of his own text books. The difficulties some students meet with in attempting to make Abstracts would be very amusing if they did not indicate an almost total failure of educational training in the matter of *thinking for one's self*. Recently a Pupil brought me a work on Physiology, written for general readers, and, pointing to a paragraph in it that occupied nearly a whole page, exclaimed, "The only way I can make an Abstract of that paragraph is *to learn it by heart!!!*" A glance at it showed me that I could ex-

press the gist and pith of it in the following sentence:—"The pulse beats 81 times per minute when you are standing, 71 times when sitting, and 66 times when lying down." After a re-perusal of the paragraph he remarked, "You are right. That is all one cares to remember in that long passage." To his request for me to memorise the Abstract, I replied by asking what is the "Best Known" in it. Why, "pulse," of course. It is merely occupied with the number of times the pulse beats per minute in different positions of the body. Now correlate (memorising your correlations as you proceed) "Pulse" to "standing" and "standing" to a word expressing 81 (feet); "sitting," to a word that translates 71 (caught), and "lying down" to a word that spells in figures 66 (judge). The bodily positions being exhaustively enumerated need not be correlated together. "PULSE... beating... fighting... stand-up fight... STANDING... stand... small table... table legs... FEET. SITTING... rest... arrest... CAUGHT. LYING DOWN... lies... perjury... trial... JUDGE." After making the most careful abstract a poor memory will forget it entirely, and a *first-class memory will not retain it long from merely having made the abstract*. To consolidate and translate the *comprehension into a permanent retention*, the unfailing power of *Memorised Correlations* is needed. And this power the Art of Never Forgetting ALONE provides.

These preliminary studies will qualify the young student to distinguish the main ideas from the subordinate ones, and he will then know when reading a book what to attend to and what to reject. Try a short essay first, then a longer one; and at last, when you are familiar with the method, attack any book, and you will cope with it successfully. Not much practice in this way will be required to enable you to know, from a glance at the table of contents, just what to assail and what to disregard. And in all your *first attempts* in reading a technical work, make out an Abstract of each chapter in writing, and then deal only with this Abstract. Whenever the Subject is not treated in a desultory manner, but with logical precision, you will soon be able to find Suggestive or Prompting Words in the Sequence of Ideas and in the successive Links in the Chain of Thought that runs through the exposition. If there is no such sequence of Ideas or Chain of Thought running through it, it may serve as an amusement, but is little likely to command serious study. In a short time you will be able, in the language of Dr. Johnson, "to tear out the heart of any book." Hazlitt said that Coleridge rarely read a book through, "but would plunge into the marrow of a new volume and feed on all the nutritious matter with surprising rapidity, grasping the thought of the author and following out his reasonings to consequences of which he never dreamt." Such a result is rarely attained even by the ablest of men, but it is the ultimate goal at which every student should aim—an aim in which he will be largely assisted by the ART OF NEVER FORGETTING.

It is the novelties of Fact, Opinion, Illustration, &c., set forth in your Abstract that you correlate together, thus: You correlate the Title of the First Chapter to the Title of the Book; next, the Titles of the Chapters to each other, and then you correlate, in each chapter, the first leading idea or proposition to the title of the chapter, the second leading idea to the first, &c., &c. In this way you will proceed until you have absorbed all the *new ideas, facts, statistics, or illustrations*, or whatever you wish to retain. You can then test yourself on the work

by calling to mind whatever you have thus cemented together. One reason that ordinary readers totally fail in retaining the leading ideas of a book is that they have nothing to which TO TIE the ideas—they have no Method to assist them in the matter of Retention. But when they CORRELATE the Points, Facts, Principles, &c., to Correlating Words found in the text, they seize hold of whatever they wish to remember with an unrelaxing grasp. A *memorised CORRELATION* is the panacea for RETENTION of any and all facts whatsoever. And one book learned in this thorough-going manner will so strengthen the Natural Memory, in both its stages, that Abstracts and Correlations will no more be needed, or only on *exceptional* occasions.

 The foregoing exhaustive mode of dealing with a book is recommended to those who possess very weak natural memories not yet made powerfully retentive by my System as a Memory-TRAINER. If, however, Pupil possesses a good natural memory, and a mastery of my System as a Device for memorising, and he has also greatly added to the power of his Concentration as well as his memory by doing all my exercises, he will not use my System, even in the reading of the first book, except now and then—certainly not constantly, but only occasionally. Although not necessary in case of good memories strengthened by my System, yet I do most earnestly recommend the most gifted and highly endowed to deal with *one* book in the above thorough-going manner. The gain to intellectual comprehension from having carefully abstracted it, and the prodigious gain to the memory from having made and memorised so many Correlations, will produce results that will last through life, and make all subsequent acquisitions easy and delightful.

Let no Pupil attempt the learning of a book in the way I describe until he has properly done the exercises in the previous lessons—until he has conscientiously gone through my course of Memory-training.

Pupils have remarked to me that the practice in summarising will take a long time, quite as long as they expected to take over the whole five Lessons. It may take a long time, but no one must regard time spent in acquiring ability to discriminate between the essential and the non-essential in a book, as time given to the learning of my System. For, as I say in my prospectus, “I do *not* mean that my System communicates *comprehension* of the book; its function is not to aid in understanding,” but to aid in memorising that which is understood. I have found that, owing to defective education, ability to get at the gist of a book new to the reader is generally wanting among all classes of society, so I give in the preceding pages instruction on a subject with which I had not bargained to deal.

HOW TO LEARN HISTORY.

1. Divide your subject under heads, into groups. Find out the few main decisive events and group the subordinate facts under them. Take the four Invasions of England. Discriminate what they had in common—enlarged Inclusions. Discriminate wherein they differed—enlarged Exclusions. Discriminate and note the accompaniments of each—the producing causes, the resulting effects—enlarged Concurrences. In this way, you assimilate, absorb the real situation, and you vividly impress all the facts on your mind, because you put “brains” into your reading—your Attention is all the time interested, and you thus live over yourself the lives of others—you convert second-hand knowledge into first-hand knowledge; and when you have studied out the subject and condensed it into an abstract, use Correlations to fix it permanently in your mind.

2. On these principles make your abstract, and make it in *as few words as possible*, arranging these words as far as you can in natural sequence, according to the laws of In., Ex. and Con., and on the right half of the page of a good-sized blank-book.

3. In a column parallel to the column containing the abstract, write down the chief words of your abstract, connecting them by Correlations where there is no natural connection.

4. Try to keep the general thread of the narrative fairly clear. To do this, it will be necessary to use frequent parentheses.

The student will find that the act of abstracting and methodically arranging the ideas presented to him, will do more to impress them on his memory than six ordinary perusals, and he will be able to abstract the second book he tries almost as rapidly as he would read it in the usual way.

In course of time he will be able to dispense with an elaborate and conscious use of Abstracts and Correlations.

I subjoin Abstract and Correlations as to a portion of the first chapter of Green's "Short History of the English People." As you deal with History, so you would deal with any other work.

HISTORY OF THE ENGLISH PEOPLE.

[The following was sent me by a young lady. If she finishes *one book* in this way, she can read many books hereafter, and neither make an Abstract or Correlation, and yet infallibly remember them all.]

THE ENGLISH PEOPLE ... ENGLISH ...
English Hon ... den ... Denmark ... Jutland ...
Jutes ... jute ... coarse cloth ... sackcloth ...
Saxons ... saxhorn ... thrilling note ... tingle ...
English ... common name ... unity ... prominence of one tribe.

[A. English people ... people ... society ... social organisation.]

SOCIAL ORGANISATION ... socialism ...
great landowners ... free landholder ... hold
weapon ... weaponed man ... private war ...
Public justice ... penalty ... money compensation ...
wrong ... murder ... blood-witte ... wight ...
individual ... family to family ... family ties ...
Blood-bond (kinsman responsible for each
other) ... alliance ... war ... peace ... peaceful occupation ...
tilling the land ... land-holder ...
freeholder ... freeman ... independent individual ...
independent community ... jealous
of boundaries ... (marches ... mark) ... bound ...
encircle ... belt of land ... "land for the people" ...
common ... common ground ... burial ground ... death ground ...
death ... kill ... kill ... criminals ... open enemy to law ... secret foe.

[B. Social organisation ... social orders.]

SOCIAL ORDERS ... freemen ... too free ...
blunt ... churlish ... ceorls ... ceorls ... earls ... noble
blood ... turtle's blood ... aldermen ... elected ...
elected leaders ... leadership ... Sovereignty ...
sovereign people ... assembly of the people ...
legislation ... administration ... administer ...
medicine ... bark ... sacred tree ... cut down ...
cut short ... debate ... moot point ... moot-hill ...
Wittenagemot ... wit ... wisdom ... Council of
wise men.

[C. Social Orders ... priest's orders ... priest ... Religion.]

The English people came originally from Denmark (Sleswick was then termed Eng-land). They consisted of three tribes, the Jutes, the English, and the Saxons. Their common name (the English) indicates their unity and the prominence of one tribe.

The basis of the Social Organisation of the English was the free-landholder, who was called the "weaponed man," this implying that he had the right to defend himself, the right of private war. There was some idea of public justice, however, in the blood-wite or money compensation paid by the family of the wrong doer to the family of the wronged. Thus arose the blood-bond, all kinsmen being responsible for each other, and this led to alliance both in war and peace. The chief occupation of the English in peace was tilling the land, and the freeman was strictly the free holder. The communities were as independent as the individuals, and very jealous of their boundaries (called marks), which generally consisted of a belt of waste land, considered as common ground, and used as a death ground, where criminals were executed. Any stranger passing through it secretly might be slain.

Social Orders. There were two social orders, the freemen or ceorls, and the eorls, or men of noble blood, from whom were elected by the people the ealdormen to be leaders in war and peace. The actual sovereignty rested in the whole body of the people, who assembled for purposes of legislation and administration round a sacred tree or round a moot hill, where also the Wittenagemot, or council of wise men assembled.

RELIGION ... natural religion ... *nature-worship*... (public worship... *priests*... *authority*... important... *unimportant*... *chief deity*... *idol*... *wood*... *Woden*)... *woe*... *desolation*... *war-god*... pretext for war... *encroachment*... *boundaries*... *bound*... *bind*... *book*... *letters*... *child*... *old man*... *grandfather*... *ancestor* (of kings)... *Woden's day*... *Wednesday*... *Thursday*... (*Thor's day*... *Thor*... *Thunder*... *storm*... *rain*... *cool the air*... *air*)... *Friday*... (*Frea's day*... *freedom*... *joy*... *peace*... prosperity... *Fruitfulness*)... *Saturday*... (*satyr*... *Soteres*)... *wages*... *due*... *Tuesday*... (*Tuo's day*... *hue*... *dark*... *dark god*... *gloom*... *death*)... *Easter Tuesday*... *Easter*... (*Eostre*... *east*... *dawn*... *rising*... *spring*)... *resurrection*... *Death goddess*... (*fate*... *weird*... *Wyrd*)... *sword-wielding woman*... *shield maidens*... *breast-plate*... *heart*... *core*... *Nicor*... (*nixy*... *water-spirit*)... *Old Nick*... *black*... *smith*... *Wayland**... *Weland*... *land*... *sea*... *fish*... *gill*... *Ægil*... *eagle*... *feathered*... *arrow*... *archer*.

[D. English Religion... England... Britain.]

BRITAIN ... *invasion of Britain*... *Julius Caesar*... (*seize her*... *seize goods*... *sell* all (55) ... *sales*... *sailor* (51))... *conquest*... *more conquests*... *forward*... *Forth*... *water*... *land*... *agriculture*... *Agricola*... (*rick*... *Fire* 84) ... *Roman governor*... *Roman civilisation*... *civil*... *cities*... *streets*... *roads*... *intercourse*... *commerce*... *natural produce*... *agriculture*... *ground*... *underground*... *mining*... *gold mines*... *wealth*... (*decayed fortunes*... *decay*)... *landed proprietors*... *property*... *chattels*... *serfs*... *absolute power*... *despotic government*... *heavy taxation*... *duties*... *trade*... *trade-guilds*... *exclusive*... *hereditary caste*... *cast down*... *broken*... *divided*... *disunion*... *union*... *guild*... *town*... *Romanised towns-people*... *un-Romanized country people*... *north country*... *Northern Britons*... *Scotch*... *Scots*... *Picts*... *picking and stealing*... *raids*... *thief*... "stop thief"... *call*... *recall of legions*... (*crowds*... *crowd round*... *go round*... *rotate* 411)... *Britain defenceless*... (*enemies*... *Picts*... *Scots*... *cot*... *peaceful*... *ire*... *Ireland*... *home rule*... *English rule*... *English hire defenders*... *fender*... *fire place*... *ingle*... *English*... *shipping*... *rigging*... *wire rope* (449)... *wire fence*... *poultry yard*... *hen*... *Hengest and Horsa*.

Religion—The religion of the English was a kind of nature-worship, and consequently the priesthood was unimportant. The chief deity was Woden (from whose name we derive *Wednesday*) the war god, guardian of ways and boundaries, inventor of letters and reputed ancestor of the kings of each tribe.

Thursday is Thor's day. Thor or Thunder was the god of Storm, rain, and air.

Friday is the day of Frea, the goddess of joy, peace and fruitfulness.

Saturday is the day of Soteres.

Tuesday—the day of Tew, the dark god, to meet whom was death.

Easter is from Eostre, the goddess of the dawn.

Besides these, among many other mythical figures were the death goddess (Wyrd), the shield maidens, the water spirit, Nicor, Weland the Smith, Ægil the hero archer.

Britain was invaded by Julius Caesar in the year B.C. 55, and again in B.C. 54; its conquest was completed, as far north as the Forth, by Agricola, A.D. 84. Roman civilisation was introduced. Great cities were built, linked by magnificent roads; commerce thrived, and agriculture and mining flourished. The country became wealthy, but its decay was approaching. The cultivators on the estates of the great landed proprietors sank into serfs, the government was despotic, taxation was heavy, each trade was confined by a trade guild to a hereditary caste, and there was dissension among the Britons themselves. The town-people were Romanised, but the country people remained apart, and the Britons in the North, who were called Picts, made raids on Roman Territory.

The Roman legions were recalled in 411, and Britain, left defenceless against the Picts, the Scots (an Irish tribe), and the English, took the fatal step of hiring her enemies the English as supporters against her other enemies; and in 449 an English army under Hengest and Horsa sailed from Jutland to Ebbsfleet in the Isle of Thanet.

Let no pupil memorise this before he has read the chapter in Mr. Green's book. The Correlations ought not only to bring to mind the facts in the summary, but the fuller details given in Chapter I. of Mr. Green's valuable work—not the words literally, but the sense entirely. Instead of using the Correlations given here, make your own; and, instead of using the summary given here, make your own digest. A pupil, if he uses someone else's Correlations, is like a man walking on crutches, and if he uses someone else's summary, is like a swimmer on bladders, or a child in leading strings.

Let the thoughtful Pupil note the contrast between this method of reading history, and the usual method. In the latter case, the eye may follow the words and sentences and paragraphs, and even pronounce them aloud, and all the time the reader is thinking of something else!!! He thus gets no *First Impression*. He absorbs but one fact or idea out of 1000! But, in using the above Method, the reader must think of the subject matter. He cannot make the abstract if his mind wanders; he thus absorbs all the per-

* A character in "Kenilworth."

† The "s" is to remind the pupil that it is 54 and 55 B.C. and not A.D. See "Figure Alphabet," page 60.

tinent ideas in abridging the statement, and he then clinches them and consolidates them in his memory by the memorised Correlations. Although a little slow at first, he soon gains speed, and what is more, he soon likes the method, because he remembers what without it he could never retain, and because also he finds the making the abstract and the needful Correlations, and memorizing them, are pleasing intellectual occupations. In this way he really does master the history, and he henceforth carries all its facts and events in his head for the rest of his life.

MEMORISING MILITARY TACTICS.

Turning force...mill-stream...river...varying depth...danger to bather...risk...fear...run...Bull Run...flat race...winner...first...first lay subject...Lord Chancellor...Chancellorville.

Bull Run...bony bull...“seven lean kine”...seven animals...seven miles...seven mills...Union Mills...mill-stone...Stone Bridge...fixed bridge...fix passage...six passages...at each passage...Burlington Arcade...Mississippi arcade...a Confederate brigade...two brigades in reserve...reservoir...fish pond...they fished a shallow dock (1861, July 17)...deep pool...dive (on the 18th)...duck...fed...Federals...union...uniting point...Centreville...focus...burn black...Blackburn's Ford...dark and star-light...Astronomer Mitchell...Mitchell's Ford...mich...skulk...retreat of Federals...treat...delicious odour...nose (on 20th)...ridge...“Stone-wall” (Jackson's brigade)...pier...Chelsea...Mitchell's Ford...Chelmsford...Zulu assegai...stung...Bee's brigade...stung hand...ball blue...behind Ball's ford...rifle ball...bullet wound...wound (on the 21st)...shillelagh...Irish...Mitchell Henry...Mitchell's Ford...Portland stone...Stone Bridge...froth and water...suds...Sudley's Ford...ford the Red Sea...Pharaoh...dream of fat kine...well-fed vision...Federal division...divide...dividing line...at Centreville (the reserve remained)...centre of body...stomach...feed carefully...fed right...the Federal right...right to buy...can afford...crossed at Sudley's Ford...forge...red hot...Red House...field...boundary...line...plummet...mason...left at Stone Bridge...Bridge of Signs...faint sigh...mild laugh...right a mile and a half (from the river)...mile race...last in...last...cobbler's last...hob nail...nail-maker...Kirby Smith...iron...rail...road...well-fed flogged horse...Federal flank and rear...rearing horse...broken in...Federals broke...broken pan...panic.

General Sir E. B. Hamley, in his “Operations of War explained,” uses the *first* battle of *Bull Run* and the battle of *Chancellorsville*, to illustrate the *risk* run by a force which crosses a river to turn the enemy's flank.

In the *seven miles* between *Union Mills* (on the Alexandria railway) and *Stone Bridge* (on the road from Alexandria to Warrenton), there are *six passages* over the *Bull Run* stream. A *Confederate brigade* guarded each of the six passages (while *two brigades* were in *reserve*) on July 17th, 1861. On the 18th the *Federals* marched from *Centreville*, and *Tyler's division* tried to pass at *Blackburn's* and *Mitchell's Fords*, but was made to *retreat*. On the 20th *Stonewall Jackson's brigades* reinforced the *Confederates*, and was posted in the rear of *Mitchell's Ford*. *Bee's brigade* was in the rear of *Ball's Ford*. On the 21st a *Federal division* marched for *Mitchell's Ford* (Federal left), another for *Stone Bridge* (Federal centre), and another (Federal right) for *Sudley's Ford* (beyond the Confederate left), while the Federal reserve remained at *Centreville*. Of the *Federal right* the advanced guard crossed at *Sudley's* unopposed (and were afterwards met by a part of the Confederate *Stone Bridge* brigade), and the rear at *Red House*, opposed by *Bee's brigade*. Eventually the *Federals* formed *line*, their left at *Stone Bridge* and their right a *mile and a half* from the river, on the Confederate side of it. Supported by reinforcements from the right (including *Jackson's brigade*), and the *last* brigade from the reserve, the *Confederates* fought until *Kirby Smith's* brigades of *Johnston's force*, which had arrived by the *Manassas railway*, fell on the *flank* and *Early's brigade* on the *rear* of the *Federals*, who *broke and fled*. The brigades at *McLean's Ford* and *Union Mills*, threatening *Centreville*, increased the *Federal panic*.

REMARKS.—That portion of the above which one person would remember without aid, another person must needs resort to memorised Correlations to fix permanently in mind. Again, the ability to make a good abstract of a chapter or of a book, is often more useful to the reader of a new and unfamiliar work than the ordinary University education. Yet no two abstracts would epitomise the same passage in precisely the same way. Nor, again, would two good Loissetians make Correlations alike or necessarily between the same Extremes of this Abstract. Hence, the foregoing Abstracts and Correlations are offered only as suggestions to the genuine student. But if the inevitable idler and amiable critic exclaims, “All such thoroughness takes time,” he simply means that he does not wish to learn History at all, for if he really does desire to master it, he knows perfectly well that he could make abstracts, correlate and memorise them, in one hundredth part of the time in which he could possibly learn the same work with equal thoroughness by endless repetitions.

SPEAKING WITHOUT NOTES,

is a practice similar to that of *reciting* Riddles, or the 71 sentences of the Ratio, the Series of American Presidents, or Kings of England, if he has learned them, except that in speaking without notes you enlarge more or less on each topic; but in reciting Riddles, or the sentences of the Ratio, or a Series of Names and Dates, you pronounce those and those only. A young clergyman is very apt to imagine that he will correlate together 20 to a 100 propositions in every discourse—a theoretical conjecture never verified in fact. In *practice*, he will find that he will very rarely correlate more than ten propositions together, and he will correlate sub-propositions, citations, or illustrations to the respective propositions to which they belong. Each person will manage this matter as he finds most convenient to himself, or, if he desires to literally memorise his discourses, he can do so in the manner pointed out in learning the sentences of the Ratio. But, by one who speaks without notes is generally understood one who has only memorised his leading ideas, and it is always a judicious practice for a beginner to rehearse his leading topics and their amplifications in private *that he may test his memory*, and then *become familiar* with a procedure *in private* in order to be sure to be *perfect in it before the public*. This private discipline is all the more necessary in the early stages of extempore speaking, if the speaker is at all troubled by nervous anxieties or mind-wandering.

After the clergyman has decided on his text, or the speaker on any subject has selected his special topic, the next step is to *think it out*—to make his plan—his mode of development of his ideas—their order and sequence, illustrations, &c. All this will constitute an outline—the SKELETON OF THE DISCOURSE. This should usually be committed to paper. If he possesses the requisite command of language to enable him to express his views, all he now requires to do is to *thoroughly memorise* this Skeleton.

When this is done, the orator will have no occasion to have any notes before him to refer to, and thereby to remind his audience that he is merely rehearsing fervour a week or more old; but, having the exact order of ideas in his memory, he can proceed to speak on each successive topic until he has exhausted all the points and illustrations that he had intended to use.

A speaker, who had learned my System as he claimed, wrote to me that he had carefully memorised a skeleton of a lecture, and when he delivered it, he forgot two important points!! To my inquiry how many times he had recited from memory to his friends the Boat Race and the Ratio, so as to secure confidence before others in recalling what he had learned, he replied, "Not once—did not deem it necessary." I then directed him to recite from memory the entire Ratio of 708 figures, at least 20 times before other people, and when he had done this, he more carefully memorised another skeleton of a lecture, and he did not miss a point, although he was interrupted several times!! Nor has he forgotten a single point on any occasion since. Those who wish to acquire the *full* power of my System, must faithfully carry out all my directions, and then they will find their reward is much greater than they had hoped for.

As one example *worked out* is worth reams of general direction and precepts, I propose to give a speaker's method of dealing with such a skeleton by the application of my System to the following abstract of a sermon.

2 KINGS, V. 21, 22.

"So Gehazi followed after Naaman, and when Naaman saw him coming after him, he lighted down from the chariot to meet him, and said, Is all well? And he said, All is well; my master hath sent me."

THE HISTORY AND CHARACTER OF GEHAZI. ABSTRACT.

N.B.—The words in italics are those between which Correlations are necessary.

INTRODUCTION.—

The *Bible*, like the *Sun*, sheds its influence over *all*. Tells about subjects more than kings, poor men than rich, *servants* than masters: about bad men men no less than good: *good* servants—such as *Eleazar*, *Joseph*, *Obadiah*: and *bad* ones no less, among whom, *Gehazi*.

SUBJECT—Gehazi's History suggests a warning.

I.—HIS CHARACTER—*hypocrisy*. Originally the servant of *Elijah*, he long succeeded in deceiving *Elisha* also. *Temptation* at length made him throw off the mask.

So *temptation* tries *all*. The *clear well* is disturbed by a *stone*, and the *mud* rises. The *ants' nest* is touched, and it is in *commotion*. *Hazak*, an instance of *self-deception*: and so *Gehazi* ripened for *guilt*.

II.—HIS GUILT.—His *covetousness* led him to *deceive* with a *lie*, 1st *Naaman*; 2nd, his *master*. What *daring*, to attempt to *deceive* the Lord's *Prophet*!

III.—HIS PUNISHMENT.—*Leprosy* in his own *person*, and in his *family* for *ever*.

Its bitterness threefold: 1st, *extensive*: 2nd, *intense*: 3rd *immediate*.

IV.—PRACTICAL LESSONS.

- (1) *Such characters common*.
- (2) Their existence *no argument against religion*.
- (3) *Warning against love of money*.
- (4) *Warning against dishonest business speculations of the day, as a path to affluence and position*.
- (5) *Concluding exhortation*.

CORRELATIONS.

☞ The text is first correlated to the title, "*Gehazi*.
—hazy...obscure...commonalty— *Kings*.

Royal hunt..... 2. V. 21, 22.
(= A hen will hunt no one.)

☞ The main Divisions are now connected with the Text, by a Correlation between the first of them and the suggestive word of the Text phrase—

Place-hunter...interest... "friend at Court"—1. INTRODUCTION.

☞ The Divisions are next correlated to each other; by means of which a rapid survey may be taken of the subject as a whole.

Presentation at Court...King—2. SUBJECT.

Warning from

—lowly...valley...mist...haze—*Gehazi's*

—staff...old age... "tales of a grandfather"—*history*

—historical personage—3. HIS CHARACTER.

—bad character...crime—4. HIS GUILT.

—verdict...sentence—5. HIS PUNISHMENT.

—birch-rod...schoolboy—6. PRACTICAL LESSONS.

☞ Lastly, the several points in each Division are correlated to each other, the first of them being in each case connected by a Correlation with the heading of the Division itself. Care should be taken, in addition, to connect by a Correlation the last word of the Abstract in any Division with the Heading of the Division immediately following. It will be sufficient to give an example in the case of the first three Divisions.

I. INTRODUCTION.

—Acquaintance...relatives...family— *The Bible,*

—divinity...Sun God— like the *Sun,*
sheds its influence

—Sunday...Sabbath...holy...whole— over *all:*

—omnibus...hotel— it *tells* about

—Tell...apple...application...situation— *servants* more
than masters:

—wages...reward...good service— *good servants,*

—child...question... "eh, Sir?"— such as *Eleazar,*

—lazar...leprous...spotted...variegated...coat of
many colours— *Joseph,*

—sheaves...Ruth...Obed— *Obadiah:*

(1) and *bad* ones, no
less; amongst whom

—weather...haymaking...hay— *Gehazi.*

—servant—

2. SUBJECT.

Gehazi's history

—discourse...exhortation...advice— *suggests*

—prompt...timely notice— a *warning.*

—storm signal...sign...hieroglyphic—

3. HIS CHARACTER.

—actor...mask—	<i>Hypocrisy.</i>
—deceit...subtlety...serpent—	<i>Temptation</i>
—attempt...do...make—	<i>made him</i>
—compulsion...restraint—	<i>throw off</i>
—throw...ball...bal masqué—	<i>the mask</i>
—disguise...detective...thief...trial—	<i>Temptation</i>
—drink...adulteration...tests—	<i>tries</i>
—judge...judgment hall—	<i>all.</i>
—altogether...decided—	<i>The dear</i>
—leap over...spring—	<i>well</i>
—ill...calamity...distressed—	<i>is disturbed</i>
—broken rest...broken pane—	<i>by a stone</i>
—pebble...gravel...soil—	<i>and the mud</i>
—muddy water...spring—	<i>rises ;</i>
—early rising...sluggard—	<i>the ant's</i>
—insect...leaf...twig—	<i>nest</i>
—egg...yoke...ox goad—	<i>is touched,</i> <i>and it is in</i>
—stirred...disturbance—	<i>commotion</i>
—motion...wheel...nut...hazel—	<i>Hazel,</i> <i>an instance</i>
—a sale...mock auction...deception—	<i>of self-deception.</i>
—deceit...seat...set—	<i>So</i>
—tears...a sob...a sigh—	<i>Gehazi</i>
—gaze...peer...pear—	<i>ripened</i>
—seasoned...hardened...criminal—	<i>for guilt</i>

Let the Student send me his own Correlations in lieu of the foregoing, and an example of his own completely worked out as above, whether his example be a Sermon, a Scientific or Literary Address, or a Speech on any other subject. I will return it to him with my criticism provided he enclose a stamped directed envelope.

After two or more Abstracts or Skeletons have been worked out carefully in this exhaustive manner, less pains will thereafter suffice. As the Pupil's memory grows stronger and his confidence in the method increases, he will need to correlate together only a few catchwords.

HOW TO USE THE "LOISETTIAN SPY-GLASS."

The following is an account, by one of my Students, of a Feat of Memory that my Pupils have performed for many years, although this particular one is the first to call it the "LOISETTIAN SPY-GLASS":—

One evening at a party, I conceived the idea of what I call the "Loisettian Spy-Glass." I challenged the company to elect one of its number to place 50 different articles on a table in a private room, and then the entire company was to be invited into the room, and all of us were to have just time enough given to take a deliberate look at each article, when we were to return, and I would be the only one who could remember and mention all the 50 articles. The trial was made, and I alone was successful. The highest number reached by anyone else

was 19! To the question, "How could you remember them all?" my reply was, "I looked at the articles through the 'Loisettian Spy-Glass,' or, in plain language, *the Loisettian System had enabled me to remember them all*. Since then I have successfully remembered 100 such articles after little more than a glance at them. In short, I believe I could take a mental inventory of a small Civil Service store, and un-failingly remember every article, without making a single mistake.

Taking a hint from the foregoing, which I have copied into my Prospectus, another Pupil sends me the following list of articles, which had been placed on a table in a private room, *which he correlated together*, and was thereby enabled to remember without mistake—the highest number remembered by his most successful competitors being only 15!!—

FIFTY ARTICLES ON THE TABLE.

Opera-glass... corkscrew... hammer... ring... scissors... key... flower... doll... duster... bracelet... book... Noah's ark... mouse-trap... boot... collar... string... music... ruler... wig... filter... bun... forceps... sandwich... egg-boiler... pen... cheese... lace... egg... chalk... shell... letter-weight... gum bottle... slate... fig... glove... work-box... ball... trumpet... pack of cards... flat iron... warming-pan... counters... timepiece... gimlet... diary... newspaper... skipping-rope... map... chess-board... tippet...

These are his own Correlations—by means of which he remembered all these articles:—

OPERA GLASS... Glass... bottle... cork... CORKSCREW... Screw... nail... HAMMER... Hamper... luncheon... dinner... bell... RING... Finger... nail... SCISSORS... Cutter... boat... river... quay... KEY... bunch... bunch of flowers... FLOWER... Petal... pet... idol... DOLL... Sawdust... DUSTER... Dust... road... race... brace... BRACELET... Let... letters... printing... BOOK... Leaf... tree... bark... ark... NOAH'S ARK... Ararat... rat... rat trap... MOUSE TRAP... Mouse... cat... puss... "Puss in Boots"... BOOT... Lace... lace collar... COLLAR... Neck... necktie... tie... STRING... Fiddle-strings... MUSIC... Bar... iron... iron ruler... RULER... King... crown... head... WIG... False hair... fall... waterfall... water... FILTER... Charcoal... wood... bundle of wood... bundle... BUN... Bonnet... head... forehead... FORCEPS... Force... forcemeat... meat... SANDWICH... Sand... sandglass... EGG BOILER... Egg... chicken... bird... plume... quill... PEN... Nib... nibble... CHEESE... Cheesemonger... hunger... appetite... tight lacing... LACE... Lay... lay an egg... EGG... White of egg... white... CHALK... Cliff... sea-shore... shells... SHELL... Fish... scales... LETTER WEIGHT... Letter stamp... gum label... GUM BOTTLE... Gums... mouth... roof of mouth... roof... SLATE... Sum... figures... FIG... Date... palm... hand... GLOVE... Boxing... box... WORK BOX... Cotton... reel... dance... BALL... Toss... bull... horn... TRUMPET... Trump... whist... cards... PACK OF CARDS... Cardboard... board... ironing... FLAT IRON... Flat... pancake... pan... WARMING PAN... Bed... counterpane... COUNTERS... Coin... mint... thyme... TIME-PIECE... Time... mark time... drill... hole... GIMLET... Let... "Letts' Diary"... DIARY... Chronicle... "Daily Chronicle"... NEWS-PAPER... Lines... rope line... rope... SKIPPING ROPE... Rope... Europe

...Map of Europe...MAP...World...round...square...CHESS BOARD...
Boa...fur...TIPPET.

Let the Pupil make and memorise his own Correlations in each of above cases and send them to me for criticism.

CAUTION.—Let the Pupil not attempt to do this Feat until he has repeated before others from memory at least 10 to 20 times The Knight's Tour, The Ratio, and one or two other exercises that I may have given him. When he can *think*, and *recall* past thoughts readily in the presence of others, when his *retentiveness* has been greatly improved by his having *made* and *memorised* a great many Correlations, then he can do this Feat with invariable success, commencing with 25 articles, gradually increasing in number till he can remember 100. When challenged to show what he can do, let him challenge his challenger to take part in this Feat, and he will beat him every time; since his challenger will have no method to assist him and no Correlation to make his memory infallible. Let the ambitious Student perform this Feat as often as possible, not merely to astonish his friends, but to gain *confidence* in the use of his memory, and readiness in the application of my Method—results which will go far to make him successful in any walk of life. When any of my Pupils is challenged to prove what he can do, the true test is not to compare his efforts with what has been told his critics, or what they have read about anyone else; but, the only honest criterion is between what he could do *before* learning my System, and what he can do *now* in the same time.

MEMORISATION of LATIN, GREEK, or other Foreign Sentences.

Latin Sentence.	Translation.
Res, ætas, usus semper aliquid apporat novi. (<i>Terence</i> .)	Thing (experience), age, custom always brings something new.
Video meliora proboque, deteriora sequor. (<i>Ovid</i> .)	I see the better things and approve of them, I follow the worse.

To remember such sentences, correlate, if necessary, all the words to one another, *or those parts only where you find that your natural memory fails you*. For instance, the first of the above sentences may be memorised thus: RES (rase) graze...eat...ÆTAS (ass)...beast of burden...useful...USUS (use)...useless...empty...SEMPER (December)...Christmas...tide...water...liquid...ALIQUID (quidnunc) news...reporter...port...APPORAT (tat) tatter...old...new...novice...NOVI.

Memorisation of the second sentence—VIDEO (vide) see...see better...ameliorate...MELIORA...(meal) linseed...lint...wound...proba...PROBOQUE (pro) con...contrary...oppose...deter...DETERIORA (deteriorate) inferior...follower...sequence...SEQUOR.

The following distich contains all the letters of the Greek Alphabet :

GR.	Ψυχῇ,	βλέψον	ἄνω,	ξείνων	δ'ἐπλήθεο	πάντων.
RO.	Psyche,	blepson	ano	xeinon	d'epiletheo	panton
LIT.	Soul,	look thou	upward,	foreign	forget thou	all things.
G.	Μηδέ	σ'ἄγῃ	νικῶν	πρὸς	ζοφόεντα	δέμας.
R.	Mede	s'age	nikon	pros	zophoenta	demas.
L.	That not thee lead conquering towards dark things the body					


CORRECT TRANSLATION.

My soul, look thou on high ; heed not things foreign to thy nature, lest the body triumph over thee, and lead thee into darkness.

THE DISTICH IN CAPITAL LETTERS.

ΨΥΧΗ ΒΛΕΨΟΝ ΑΝΘΡΩΠΙΝΟΝ Δ'ΕΠΙΛΗΘΕΟ ΠΑΝΤΩΝ
ΜΗΔΕ Σ'ΑΓΗ ΝΙΚΩΝ ΠΡΟΣ ΖΟΦΟΕΝΤΑ ΔΕΜΑΣ.

Distich...couplet...couple...single...soul...psychology
...Ψυχή...key...water...bubble...bleb...βλέψον...plebe-
ian...ann...άνω...no...more...plus...sign + ... ξείνων...
known...let know...inform...infirm...debile...δ'ἐπιλήθεο
theism...pantheism...πάντων...pan...pot...drink...mead
...Μηδέ...Eden...fall...bend...sag...σ'ἄγῃ...agony...
sharp pain...sharp point...cone...νικῶν...nickname...libel
...prosecution...πρὸς...prostrate...lying down...sofa...
ζοφεόντα...end...aim...dame...δέμας.

 ACCUMULATIONS of FACTS, PRINCIPLES, CITATIONS, ILLUSTRATIONS, PROVERBS, ANECDOTES, &c., &c., on any particular subject.

Suppose you recognise the fact that you are a social being, you will then realise the duty of becoming an ENTERTAINER. By my Art, you can soon accumulate and have at instant command hundreds of anecdotes, conundrums, &c., &c. (1) The first thing to be done is to memorise, say for instance the following Riddle:—"Why was Noah the greatest financial genius ever known? Because he managed to float a Company of Limited Liability whilst the rest of the world was in liquidation." You might make two or three Correlations, and, by memorising them, infallibly remember the conundrum and its answer. But, for the sake of illustration, I will correlate together all the principal words, thus: WHY...*knows why*...know...NOAH...*flood*...*fire*...*grate*...GREATEST...*smallest*...*small*...*fine*...FINANCIAL...*money*...*money-king*...*clever-head*...GENIUS...*fool*...*"yes, no"*...KNOWN...*well-known*...*well-being*...*bec*...BECAUSE...*cause*...*bringing to pass*...manager...MANAGED...*man*...*man of war*...FLOAT...*buoy*...single...COMPANY...*accompaniment*...music...stop...*limit*...LIMITED...*limited responsibility*...LIABILITY...*lie*...*lie down*...rest...REST OF THE WORLD...*globe*...water...liquid...LIQUIDATION, or using Interrogative Analysis exhaustively for illustrating, thus: What indicates this to be an enquiry?—"Why was Noah the greatest financial genius ever known?" Is this enquiry made in regard to the present, past or future?—"Why was Noah the greatest financial genius ever known?" In regard to whom is the question asked?—"Why was Noah the greatest financial genius ever known?" What enquiry is made concerning Noah?—"Why was Noah the greatest financial genius ever known?" In regard to what was Noah the greatest genius?—"Why was Noah the greatest financial genius ever known?" In what degree was Noah a financial genius?—"Why was Noah the greatest

financial genius ever known?" Does this enquiry imply that there has often been such a genius?—"Why was Noah the greatest financial genius *ever* known?" Was the existence of this genius a matter of conjecture or of positive knowledge?—"Why was Noah the greatest financial genius *ever known*?" How do you know that he possessed this great financial genius?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." Who managed to float a company?—"Because he (Noah) managed to float a company of limited liability whilst the rest of the world was in liquidation." What did Noah do in regard to this company?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." Was it as manager or otherwise that he succeeded in floating the company?—"Because he *managed* to float a company of limited liability whilst the rest of the world was in liquidation." What did he manage to float?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." What kind of company did he manage to float?—"Because he managed to float a company of *limited liability* whilst the rest of the world was in liquidation." When did he manage to float this company?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." Whilst he floated this company, was there anything not floated or in liquidation?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." The rest of what was in liquidation?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." Is the assertion made of the rest of the world?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation." In what condition was the rest of the world?—"Because he managed to float a company of limited liability whilst the rest of the world was in liquidation."

In this manner, with as many or as few Correlations or Interrogations as he finds needful, the Pupil will always first memorise the citation, adage, anecdote, riddle, or whatever else he wishes to remember. (2) The next step is to Correlate the *first* anecdote, citation, illustration, &c., to the CLASS to which it belongs, and through which you must think to get to it by correlating the prompting or suggestive word to that class. In the case of the above riddle, the class would be the word Financial or Financial Genius, and to this you would correlate the word Noah; or you could start, as I do in the case of the following Riddles, and connect the prompting word "wrathful" in the first riddle to the word riddle itself, and the word "wrathful" to the Prompting word in the next, to wit, "sneeze," and so on till hundreds of riddles are cemented together, always presuming that the Student first memorises a riddle when he first meets it, as I did the "Noah" riddle above. Similarly, he can tie up hundreds or even thousands of facts to the class to which they belong, doing one at a time as he finds them. In this way, any one could easily learn an entire book of anecdotes, a dictionary of quotations, masses of facts, experiments, &c., &c., by correlating them to the classes to which they belong, and then stringing together all those that come under that class, as these Riddles are united together below.

RIDDLES.

[...questions...disputing...quarrelsome...]

1. Why is a *wrathful* man exactly like 59 minutes past 12? Because he is just upon the point of striking one (1).

[...hot-tempered...hot...cold...]

2. When does a man invariably *sneeze* five times in succession. When he cannot help it.

[...tissue...fibres...strings...]

3. When is a *bonnet* not a bonnet? When it becomes a woman.

[...head...nail...hammer...]

4. Why is a *blacksmith* the most dissatisfied of mechanics? Because he is always striking for his wages.

[...Smith O'Brien...]

5. Why is an *Irishman* rolling over in the snow like a mounted policeman? Because he is pat-rolling.

[...Emerald Isle...lapidary..."cut"...]

6. Why is a game of *cards* like a timber yard? Because there are always a great many deals in it.

[...advertisement...quack...]

7. Why do *ducks* put their heads under water? For divers reasons.

MENTALLY REPORTING SERMONS OR LECTURES.

In these cases you correlate together the leading Propositions, Facts, or Illustrations which you wish to remember. The process is exactly the same as that pursued with the Riddles or the sentences of the Ratio, with this difference, that the Riddles and the sentences of the Ratio are selected for you, but, in mentally reporting, you have to make your own selection of the Points or Topics of the discourse you wish to report. No one would attempt to remember all the *words and sentences* spoken. It is only the leading ideas you wish to carry away. But even then you have a triple work to do. You have to *select* your Propositions to be remembered and also the *Suggestive Words* in them, and then *correlate* together these Suggestive Words, and all the time you are doing these onerous feats, you are *anxious* lest you may omit some important remark or ideas!! Some people are so troubled with this nervous anxiety that all their efforts to think, select, and correlate are completely paralysed! But let not the most courageous and steady of nerve attempt too much the first time he tries, nor even the second or tenth time. "Make sure of a few things, even although you lose many things," should be his motto, until he can coolly plan and rapidly execute. But let no one attempt to report an address until he can make Correlations very rapidly, and until he has had genuine practice in making abstracts of essays, chapters, &c. That secures a mastery of the method to be used, and its application to Mental Reporting becomes thenceforth easy and delightful if he can restrain all nervous anxieties. ☞ The best Method for the beginner is to take careful notes while listening, and then on his way home, or immediately on reaching home, let him thoroughly memorise his notes by my System, and not lay his notes aside, as is usually done, with the resolve, rarely carried out, of memorising them subsequently. But let him memorise

them while the matter is all fresh in his mind. In this way he soon strengthens his Natural Memory and his power of abstracting to such a degree that he can listen and take away with him everything he desires to remember. And, on all occasions, let him give an account to some one of the lecture, and with as much detail as possible. After his memory has been thus developed and strengthened to its utmost, he will not have to use Correlations or Interrogative Analysis and Abstracts. Successful Mental Reporting is one of the final and crowning triumphs of the Art of Never Forgetting.

[MORE THAN 1500 APPLICATIONS OF MY SYSTEM!!—There are 500 applications of the Laws of In., Ex. and Con. in the First Lesson, and in the subsequent lessons, including this one, there are more than ONE THOUSAND Correlations, each one of which is a distinct and separate application of my System. No one can learn and use all these applications of my System in the exact way I point out, by regarding my Correlations, date-words, homophones, &c. as Samples only, and using his own date-words, Correlations, &c., without having his concentration greatly strengthened and becoming a genuine Memory-Athlete.]

MEMORY AND SUCCESS.—If a manufacturer is about to engage 1000 men, what is the secret principle that guides his choice, always assuming that the applicants are trained to the business? It is: "Can they remember to do exactly as they are told to do?" And if, from pressure of hard times, he is obliged to discharge half of them, who have to go? Those whose treacherous memories prevent their remembering their instructions, and who are always or occasionally offering excuses for omissions, blunders, or mistakes. And the same course is taken in every other department of life. In short, the HIGHEST SUCCESS is possible *with* a good memory: impossible without it. And FAILURE always haunts the steps of those possessing unreliable memories. Therefore, my final words to my Pupils are, "Get Health, get Competency in your calling, but above all get—if you have not already acquired—The LOISETTIAN Art of Never Forgetting."

APPENDIX TO LOISETTE SYSTEM.

THE LOISETTIAN SCHOOL OF PHYSIOLOGICAL MEMORY.

PRESIDENTS OF THE UNITED STATES OF AMERICA.

*GENERAL GEORGE WASHINGTON,	From 1789 to 1797
JOHN ADAMS,	From 1797 to 1801
*THOMAS JEFFERSON,	From 1801 to 1809
*JAMES MADISON,	From 1809 to 1817
*JAMES MONROE,	From 1817 to 1825
JOHN QUINCEY ADAMS,	From 1825 to 1829
*GENERAL ANDREW JACKSON,	From 1829 to 1837
MARTIN VAN BUREN,	From 1837 to 1841
†GENERAL WILLIAM HENRY HARRISON,	1841
JOHN TYLER,	From 1841 to 1845
JAMES KNOX POLK,	From 1845 to 1849
†GENERAL ZACHARY TAYLOR,	From 1849 to 1850
MILLARD FILLMORE,	From 1850 to 1858
GENERAL FRANKLIN PIERCE,	From 1853 to 1857
JAMES BUCHANAN,	From 1857 to 1861
*ABRAHAM LINCOLN,	From 1861 to 1865
†ANDREW JOHNSON,	From 1865 to 1869
*ULYSSES S. GRANT,	From 1869 to 1877
RUTHERFORD BIRCHARD HAYES,	From 1877 to 1881
†GENERAL JAMES A. GARFIELD,	1881
GENERAL CHESTER A. ARTHUR,	From 1881 to 1885
GROVER CLEVELAND,	1885

Pupils who have mastered my System, learn the above series, which gives the Order of Succession, Dates of Accession, and the time of termination of Official Service of the American Presidents, in a single careful perusal.

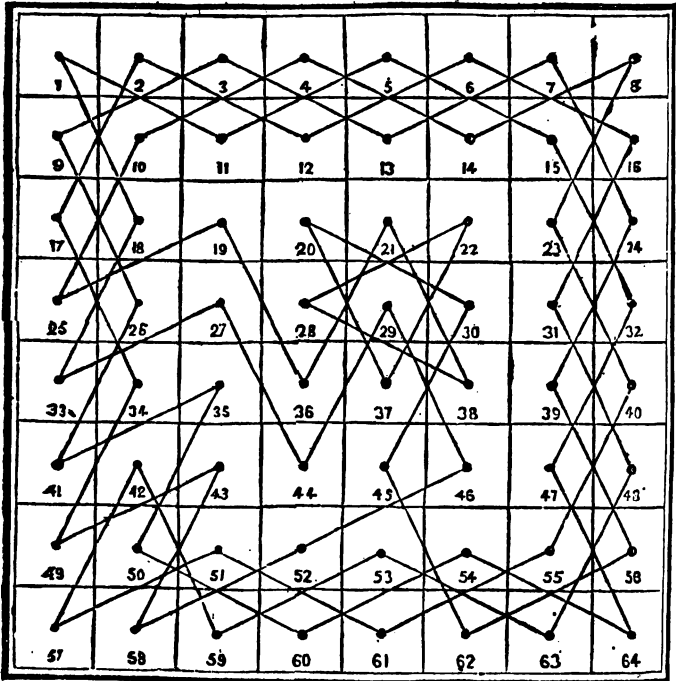
Printed expressly for the Pupils of PROFESSOR A. LOISETTE.

* Those who were in office more than four years were re-elected for a second term.

† Those who were Presidents for less than four years, died in office and were succeeded by Vice-Presidents. President Lincoln was murdered forty days after the commencement of his second term of office, when Vice-President Johnson became 17th President.

THE KNIGHT'S TOUR.

It goes without saying to the Chess player, that the move of the Knight is L shaped, one leg of the L being always twice as long as the other, and that in this celebrated Tour he makes correct Knight's moves all the time; but in popular language we may say: the object of this Problem is to conduct the Knight all over the Board from No. 1 or any other number, and to return to the same point whence it started without its having rested upon the *centre* of any square more than once in its course. The following is a diagram of the tour:



The crookedness of this journey must be apparent to any one. If he start from square 1, he would have to touch successively the following squares, reading the series from left to right and not in columns.

1—11	5	15	32	47	64	54	60	50	35	41	26	9	3	13
7	24	39	56	62	45	30	20	37	22	28	38	21	36	19
10	4	14	8	23	40	55	61	51	57	42	59	53	63	48
16	6	12	2	17	34	49	43	58	52	46	29	44	27	33

18—1

To do this tour "blind fold" or without seeing the board, has always been one of the star tricks of professional chess-players; and yet *any* of my pupils can do it after their second lesson in my system. The method of Dr. Richard Grey, a celebrated teacher of Mnemonics, applied to this problem, would necessitate committing to memory the following unpronounceable and uncomprehensible word!

TOUR babubutefoisolosylytufad
aunibipefinusaudolizezipedeki
kebisanelazoboyetozulaububupo
dunutaatokibasaubedapifonotuk
udosenofepitak.

I can hardly offer a better example of the folly of artificial systems.

THE OXFORD AND CAMBRIDGE UNIVERSITY BOAT RACE.

DATE	WINNER	DATE	WINNER
1829	..... OXFORD	1865	..... OXFORD
[1831*]		1866	..... OXFORD
[1835†]		1867	..... OXFORD
1836	..... CAMBRIDGE	1868	..... OXFORD
1839	..... CAMBRIDGE	1869	..... OXFORD
1840	..... CAMBRIDGE	1870	..... CAMBRIDGE
1841	..... CAMBRIDGE	1871	..... CAMBRIDGE
1842	..... OXFORD	1872	..... CAMBRIDGE
1845‡	..... CAMBRIDGE	1873††	..... CAMBRIDGE
1846§	..... CAMBRIDGE	1874	..... CAMBRIDGE
1849	..... CAMBRIDGE	1875	..... OXFORD
1849} ¶	..... OXFORD	1876	..... CAMBRIDGE
1852	..... OXFORD	1877‡‡	{ OXFORD
1854	..... OXFORD		{ CAMBRIDGE
1856	..... CAMBRIDGE	1878	..... OXFORD
1857¶	..... OXFORD	1879	..... CAMBRIDGE
1858	..... CAMBRIDGE	1880§§	..... OXFORD
1859**	..... OXFORD	1881	..... OXFORD
1860	..... CAMBRIDGE	1882	..... OXFORD
1861	..... OXFORD	1883	..... OXFORD
1862	..... OXFORD	1884||	..... CAMBRIDGE
1863	..... OXFORD	1885	..... OXFORD
1864	..... OXFORD	1886	..... CAMBRIDGE

* Not rowed owing to prevalence of Cholera.

† The challenge of 1834 still unaccepted.

‡ First race over the Putney and Mortlake Course.

§ First race rowed in outriggers.

¶ In this Race there was a "Foul"—that is, a collision between the Boats, and it was rowed over the same year, each University winning a race.

¶ First Race in the present style of Boats without keels.

** The Cambridge Boat sank.

†† Sliding Seats used for the first time.

‡‡ The Race was a Dead Heat. The Oxford bow-man caught a crab, and sprung his oar when leading.

§§ Rowed on Monday because of fog on Saturday. The first race that was postponed.

|| Rowed on Monday, owing to Prince Leopold's Funeral taking place on the Saturday.

Mnemonics is *hors de combat* without the boasted "Wheelbarrow" euphemistically called a "Key"—100 objects, sometimes 500 or even 1000, ideally placed on the floors, walls and ceiling of rooms, or otherwise *localised* in figured situations called "Pega." To this series of fixed Objects the Mnemonist "associates" by his "Links" or "Associations" any other series, such as the Kings of England, Popes of Rome, the Sixty-four Elements of Chemistry, the Thirty-nine Articles,

the Dates of the Oxford and Cambridge successes in the University Boat Race, Topics or Heads of numerous Sermons, Addresses or Lectures; in short, everything and anything that is to be remembered!!! —a Procrustes' Bed to which everything is to be fitted by Contortion or Distortion, with the inevitable result of making this Anarchical Machine "a measure" of the Universe and of all that is therein, and the operations of the mind of the Adapter the very Climax of Artificiality!! By this False Process, the Natural Sequence of Ideas in the Subject-Matter itself is always either introverted, perverted or destroyed.

My Pupils easily learn all the facts of the Oxford and Cambridge University Boat Race, as above, or any other facts whatever, without the use of any Artificial Appliances.

KINGS OF ENGLAND BEFORE THE CONQUEST.

Egbert.....	827 to 837	Edward II., The Martyr.....	975 to 979
Ethelwolf.....	837 to 857	Ethelred II.....	979 to 1013
Ethelbald.....	857 to 860	Sweyn.....	1013 to 2014
Ethelbert.....	860 to 866	Canute the Great.....	1014
Ethelred I.....	866 to 871	Ethelred II. (restored).....	1014 to 1016
Alfred the Great.....	871 to 901	Edmund II. Ironside and } Canute.....	1016 to 1017
Edward I., The Elder.....	901 to 925	Canute (alone).....	1017 to 1035
Athelstan.....	925 to 940	Harold I., Harefoot.....	1035 to 1040
Edmund I.....	940 to 946	Hardicanute.....	1040 to 1042
Edred.....	946 to 955	Edward III. The Confessor.....	1042 to 1066
Edwy.....	955 to 958	Harold II.....	1066
Edgar, The Peaceable.....	958 to 975		

KINGS OF ENGLAND SINCE THE CONQUEST.

William I.....	1066 to 1087	Edward VI.....	1547 to 1553
William II.....	1087 to 1100	Mary.....	1553 to 1558
Henry I.....	1100 to 1135	Elizabeth.....	1558 to 1603
Stephen.....	1135 to 1154	James I.....	1603 to 1625
Henry II.....	1154 to 1189	Charles I.....	1625 to 1649
Richard I.....	1189 to 1199	Commonwealth.....	1649 to 1653
John.....	1199 to 1216	Cromwell.....	1653 to 1658
Henry III.....	1216 to 1272	Richard Cromwell.....	1658 to 1659
Edward I.....	1272 to 1307	Interregnum.....	1659 to 1660
Edward II.....	1307 to 1327	Charles II.....	1660 to 1685
Edward III.....	1327 to 1377	James II.....	1685 to 1689
Richard II.....	1377 to 1399	William III.....	1689 to 1702
Henry IV.....	1399 to 1413	Anne.....	1702 to 1714
Henry V.....	1413 to 1422	George I.....	1714 to 1727
Henry VI.....	1422 to 1461	George II.....	1727 to 1760
Edward IV.....	1461 to 1483	George III.....	1760 to 1820
Edward V.....	1483	George IV.....	1820 to 1830
Richard III.....	1483 to 1485	William IV.....	1830 to 1830
Henry VII.....	1485 to 1509	Victoria.....	1837


THE RATIO OF THE CIRCUMFERENCE TO THE DIAMETER
EXPRESSED BY THE INTEGER 3, AND 707 DECIMALS
READING FROM LEFT TO RIGHT.

	3	1	4	1	5	9	2	6	5
3	5	8	9	7	9	3	2	3	8
4	6	2	6	4	3	8	8	3	2
7	9	5	0	2	8	8	4	1	9
7	1	0	9	3	9	9	3	7	5
1	0	5	8	2	0	9	7	4	9
4	4	5	9	2	3	0	7	8	1

6	4	0	6	2	8	6	2	0	8
9	9	8	6	2	8	0	2	8	8
2	5	3	4	2	1	1	1	7	6
7	9	8	2	8	4	8	8	0	6
5	1	3	9	3	2	4	3	6	6
4	7	0	0	5	8	4	2	6	0
9	5	5	3	5	9	2	4	3	1
7	2	4	8	1	1	1	1	7	5
2	8	8	4	1	0	2	7	0	1
0	2	8	5	2	1	1	0	5	5
9	3	8	4	4	6	2	2	9	4
5	9	6	4	9	3	0	3	8	1
9	6	4	4	2	8	8	1	0	9
7	5	6	6	5	9	3	3	4	4
8	1	2	8	4	7	5	6	4	8
2	3	3	7	8	6	7	8	3	1
6	5	2	7	1	2	0	1	9	0
9	1	4	5	6	4	8	5	6	6
9	2	3	4	6	0	3	4	8	6
1	0	4	5	4	3	2	6	6	4
8	2	1	3	3	9	3	6	0	7
2	6	0	2	4	9	1	4	1	2
7	3	7	2	4	5	8	7	0	0
6	6	0	6	3	1	5	5	8	8
1	7	9	8	8	1	5	3	0	9
2	0	9	6	2	8	2	9	2	5
4	0	9	1	7	1	5	3	6	4
3	6	7	8	9	2	5	9	0	3
6	0	0	1	1	3	3	0	5	6
0	5	4	8	8	2	0	4	6	9
5	2	1	3	1	4	1	1	6	0
5	4	3	4	0	5	7	2	7	0
9	6	5	7	5	9	5	9	1	9
3	3	0	9	2	1	8	6	1	1
5	8	8	1	9	3	2	1	1	1
7	9	3	1	0	5	1	2	8	5
7	4	0	7	4	4	6	5	3	7
4	8	6	2	7	4	9	9	6	7
9	9	1	8	8	5	7	5	2	7
3	5	8	9	1	2	2	7	9	3
2	4	8	3	0	1	1	9	4	9
8	1	9	8	3	3	6	7	3	3
6	2	4	4	0	6	5	6	6	4
3	0	8	6	0	2	1	3	9	5
0	1	6	0	9	2	4	4	8	0
7	2	3	3	0	9	6	3	6	2
8	5	5	5	6	9	3	9	7	9
2	7	9	5	0	2	2	2	4	7
8	6	9	6	2	0	6	0	7	4
4	9	0	3	0	4	1	2	3	6
9	7	8	6	1	9	9	5	1	1

0	0	8	9	2	0	2	3	8	3
7	7	0	2	1	3	1	4	1	6
9	4	1	1	9	0	2	9	8	8
5	8	2	5	4	4	6	8	1	6
3	9	7	9	9	9	0	4	6	5
9	7	0	0	0	8	1	7	0	0
2	9	6	3	1	2	3	7	7	3
8	7	3	4	2	0	8	4	1	3
0	7	9	1	4	5	1	1	8	3
9	8	0	5	7	0	9	8	5	

The foregoing is a computation of the Ratio of the Circumference of a Circle to its Diameter [the Diameter being 1], made by Mr. WILLIAM SHANKS, of Houghton-le-Spring, Durham, founded upon a formula of Machin's.

 To recite even 150 of the Figures of this Ratio in the exact order is a feat practically impossible to the unassisted Natural Memory.

COMPLETE LIST OF DERBY WINNERS,

From 1780 to 1886.

Diomed	1780	Prince Leopold	1816	Daniel O'Rourke	1853
Young Eclipse	1781	Azor	1817	West Australian	1853
Assassin	1782	Sam	1818	Andover	1854
Saltram	1783	Tiresias	1819	Wild Dayrell	1855
Sergeant	1784	Sailor	1820	Ellington	1856
Ainwell	1785	Gustavus	1821	Blink Bonny	1857
Noble	1786	Moses	1822	Beadsman	1858
Sir Peter Teazle	1787	Emilius	1823	Musjid	1859
Sir Thomas	1788	Cedric	1824	Thormanby	1860
Skyscraper	1789	Middleton	1825	Kettledrum	1861
Rhadamanthus	1790	Lapdog	1826	Caractacus	1862
Eager	1791	Mameluke	1827	Macaroni	1863
John Bull	1792	Cadland	1828	Blair Athol	1864
Waxy	1793	Frederick	1829	Gladiator	1865
Dædalus	1794	Priam	1830	Lord Lyon	1866
Spreadeagle	1795	Spaniel	1831	Hermit	1867
Didelot	1796	St. Giles	1832	Blue Gown	1868
Pharamond's Sister's		Dangerous	1833	Pretender	1869
Colt	1797	Plenipotentiary	1834	Kingcraft	1870
Sir Harry	1798	Mundig	1835	Favonius	1871
Archduke	1799	Bay Middleton	1836	Cremorne	1872
Champion	1800	Bosphorus	1837	Doncaster	1873
Eleanor	1801	Amato	1838	George Frederick	1874
Tyrant	1802	Bloomsbury	1839	Galopin	1875
Ditto	1803	Little Wonder	1840	Kisber	1876
Hannibal	1804	Coronation	1841	Silvio	1877
Cardinal Beaufort	1805	Attila	1842	Sefton	1878
Paris	1806	Cotherstone	1843	Sir Bevys	1879
Election	1807	Orlando	1844	Bend Or	1880
Pan	1808	Merry Monarch	1845	Iroquois	1881
Pope	1809	Pyrrhus the 1st	1846	Shotover	1882
Whalebone	1810	Cossack	1847	St. Blaise	1883
Phantom	1811	Surplice	1848	St. Gatten	
Octavius	1812	Flying Dutchman	1849	Harvester	1884
Smolensko	1813	Voltigeur	1850	Melton	1885
Blucher	1814	Teddington	1851	Ormonde	1886
Whisker	1815				

My Pupils, through the aid of my Art of Never Forgetting, can recite the entire series forwards and backwards, and can also give the year of any horse and the horse of year, on these being asked at random, up and down the entire list, without resort to that huge Babel of Mnemonical Artificiality called a "Key," or sometimes hon-

ored by the pet name of "Wheelbarrow," or a collection of "Pegs" 100 in number, or any recourse to its "Mental Daubs" or "Nursery Associations." By means of the inexhaustible fertility of my System, my Pupils can easily add the Pedigrees of the Winners, and the names of their Jockeys and Owners. Learning the List of Derby Winners in this thorough manner is mere pastime for those who have mastered my System.

STUDENTS OF THE LOISETTE SYSTEM.

The Loiset System has had large numbers of students in all parts of the country.

The following list is taken from the "Professor's" circulars.

Philadelphia.....	1500	Yale.....	400
Baltimore.....	1100	Oberlin.....	350
Washington.....	1150	Columbia (Law school).....	100
Detroit.....	1005	Potsdam, N. Y.....	238
Univ. of Penn.....	400	Meriden, Conn.....	200
Univ. of Mich.....	409	Norwich.....	250
Wellesley College.....	400	Boston.....	1216

TESTIMONIALS OF THE LOISETTE SYSTEM.

(*Frank H. Foster, Professor in Church History in Oberlin Theological Seminary.*)

October 10, 1887.

"The more I use your system, the better I like it."

Examination Passed, and Gold Medal Won.

40 HAWKINS ST., LONDONDERRY, IRELAND.

December 8, 1887.

I can fully endorse your statement that it is calculated in the highest degree to strengthen the Natural Memory, besides being unrivalled as a device for memorizing. . . . At the Irish Intermediate Examinations, held in June, I was awarded in the Senior Grade a £40 prize, the English Gold Medal, and £4 for English Composition, and I obtained the second place in Ulster, and the fourth in Ireland, against 219 competitors, although I was a year and a half below the prescribed limit of eighteen.

As far as memory goes, I feel that this result was due to you. I believe that any school-boy who had mastered your system, and was taught as I was, would be able to carry all before him in any examination and against any rivals.

WILLIAM A. GOLIGHER.

(*Mark Twain.*)

HARTFORD, March 4, 1887.

DEAR SIR :—Prof. Loiset did not create a memory for me; no, nothing of the kind. And yet he did for me what amounted to the same thing, for he proved to me that I already had a memory, a thing that I was not aware of till then. I had before been able, like most people, to store up and lose things in the dark cellar of my memory; but he showed me how to light up the cellar. It is the dif-

ference, to change the figure, between having money where you can't collect it, and having it in your own pocket. The information cost me but little, yet I value it at a prodigious figure.

Truly yours, S. L. CLEMENS.

(*Rev. Francis B. Denio, Professor of Hebrew in the Bangor Theological Seminary.*)

If I had been a master of this System twenty years ago, I should have been saved three or four years of the drudgery of repetition, on which I have hitherto relied to fix any knowledge, and especially that of the vocabulary of a foreign language. . . . I have decided that hereafter I shall try to induce all my students to master this system before they engage in their linguistic studies under my direction.

(*Hon. W. W. Astor.*)

I have now mastered your System quite thoroughly and use it constantly.

One feature that I value not the least is that the habit of its use has greatly strengthened and improved my natural memory.

June 5, 1884.

(*New York Tribune, March 25th, 1887.*)

The System of Memory Training that is taught by Prof. Loisetto is creating a stir among mind workers, second to nothing of its character that has ever been attempted in this country.

(*Dr. Andrew Wilson, and R. A. Proctor.*)

Dr. Andrew Wilson has said respecting the System:—Whether regarded as a device for memorizing, or in its more important aspect as a System of Memory Training, Prof. Loisetto's method appears to me admirable.

I have tested it in my own case on those matters in which my memory is least trustworthy, perhaps because least exercised; and I have been surprised to find how easily and pleasantly I can fix such matters in my mind, almost without an effort, yet in such a way that I am satisfied they are there for good. . . . I have no hesitation in thoroughly recommending the System to all who are earnest in wishing to train their memories effectively, and are therefore willing to take reasonable pains to obtain so useful a result.

R. A. PROCTOR.

(*Quoted from Knowledge, January 25, 1884.*)

SIR EDWARD H. MEREDYTH, BART., writes, in a letter to a friend:—The late JUDAH P. BENJAMIN, Q. C., once said to me, "Apply to Prof. Loisetto; he gave me a new memory and his method of study is the best I know of. His System is too good for the idle and frivolous; but anyone who can devote to it the smallest modicum of application will find it easy, interesting and of the greatest value. . . . By his System I have already learned one book in one reading, and I intend to learn many more in the same way. . . . The lessons have been worth hundreds of pounds to me."

MANDALLEN LODGE, October 1, 1885.

BIBLIOGRAPHY OF MNEMONICS.*

1325-1888.

This Bibliography of Mnemonics, in its own field—publications in Latin and English†—is believed to be fairly complete, from 1325 to 1888.

Corrections of errors discovered, or additions suggested, will be gratefully received.

The following works have been freely consulted: "*Bibliotheca Americana*," "*Bibliotheca Britannica*," "*American Catalogue*," "*English Catalogue*," *Poole's Index*, also the works of Feinaigle, Pick, and Middleton; all of which contain admirable critical bibliographies, more or less extended.

In justice to the reader, a few words should be added with reference to some of the more important books in the following list. Of Fauvel-Gouraud's *Phrenomnemotechny*, the *North American Review* for July, 1845, said: "This is one of the most remarkable books it has ever fallen to our lot to examine. In style, manner, and matter, it will hereafter rank among the most curious of the curiosities of literature." Dr. Pick's *Memory and a Rational Means of Improving It* needs no commendation here. The extracts so fully quoted elsewhere amply attest its merit. The perusal of Appleby's *Loisette's Art of Never Forgetting Compared with Mnemonics* will well repay every student of Loisette. The author's acknowledgments are due for valuable suggestions. Dr. Holbrook's *How to Strengthen the Memory*, with no pretensions as a "system," contains the latest and best yet written on the all-important subject. He quotes freely the best authorities, notably Pick, and always with due acknowledgments. Kay's *Memory: What it is, and How to Improve it*, the last fourth of which deals with the cultivation of the memory, might more appropriately be called a *Cyclopedia of Memory*; so replete is it with information on every conceivable topic connected with memory. The broad scholarship and discriminating judgment of the distinguished author were never more successfully enlisted.

Prof. White's *Natural Method of Memorizing and Memory Training*, the name of which correctly characterizes it, is pre-eminently the work of a scholar. As a System none of its predecessors is more worthy of the careful attention of scholars, and none has been more appreciatively received.

- 1274(?). Roger Bacon: *Tractatus de Arte Memorativa*. MS. at Oxford.
 1325. Thomæ Bradwardini *Ars Memorativa*, MS. Manuscript in British Museum.
 1430. *Ars Memorandi Notabilis per Figuras Evangelistarum vel Memorale quatuor Evangelistarum*. Small Fol. This is supposed to be the first attempt towards a system of superficial memory.

* Works on the training of the Memory have been included, whether known as Mnemonics or not.

† The chief works in French and German have also been included.

- 1450(?). *Tractatus Artis Memorativa*.
1470. *Matheoli Perusini tractatus Artis Memorativæ*. 8°.
- 1475(?). *Perusinus, Matt. Tractatus Clarissimi et Medica de Memoria*. 4°
1482. *In nova mirabilique ac perfectissima Memoriarum Jacobi Publicii, prologus feliciter incipit*. 4°.
1485. *Publicius Jacobus: "Opera."* Includes the *Ars Memorativa*. Venice.
1488. *Ars Memorativa per Johannem Priiss*. fol. Argent.
1491. *Foenix Dnii Petri Rauenatis Memoriarum Magistri*. 4°. Venetiis.
1491. *Petrus de Ravenna. Ars Memorativa*. Went through nine editions. 4 vols. Venice.
1502. *Comm. in Aristotle. Lib. Physicorum, de Anima, de Memoria, &c.*
1504. *Aristotle. De Memoria et Reminiscentia*. Lat. Paris.
1515. *Nicholai Chappusii de mente et memoria libellus utilissimus*. 4° [Paris].
1515. *Jacobi Colinaei Campani de Memoria Artificiosa compendiosum, opusculum impressit Ascensius*. 4°. [Paris] [bl. let.].
1519. *Albertus Magnus. Varii Tractatus Parvi de Sensu et Sensato, de Memoria et Reminiscentia, &c.* Venice.
1523. *Fries, Laurenz: A Short Advice how Memory can be Wonderfully Strengthened*. Strasburg.
1530. *Paraphrasis in Aristotelem de Memoria*.
1533. *De Kyrpse, Joannis Romberch: Congestorium Artificiosarum Memoriarum*. Venice.
1586. *Discours notables des moyens pour conserver et augmenter la mémoire. Trad. du Latin de Guill. Gratarol par Estienne Cope*. 16°. Lyon.
1540. *Aristotle. De Memoria et Reminiscentia, Lat., per Nic. Leonicum*. 8vo. Venice.
1541. *Ryff, Gualth. De Memoria Artificiali et Naturali*. 12mo.
1544. *Memoriarum Ars quæ Phoenix inscribitur*. 8°. Paris.
1555. *De Memoria reparanda, augenda servandaque, lib. unus: et de locali vel artificiosa Memoria lib. alter* Guill. Grataroli. 8°. Romæ.
1556. *Campensis, Claud. Commentarii in Aristotelis librum de Memoria et Recordatione*. 8vo. Paris.
1566. *Aristotle. De Memoria, et Reminiscentia. Gr. Lat. cum comm. Simonis Simonii. Apud Joan. Crispinum*.
1570. *Artificiosarum libellus, autore Joann. Spangenberg. Herd. 8° Witeberg.*
1562. *The Castel of Memorie by Gulielmus Gratarolus Bergomatis, Englyshed by William Fulwod*. London.
1574. *Cosmi Rosselii Thesaurus Artificiosarum Memoriarum*. 4°. Venet.
1582. *Bruno, Jordano: De Umbris Idearum*. Paris.
1582. *Bruno, Jordano: Ars Memoriarum*. 8vo. Paris.
1582. *Bruno, Jordano: De Compendiosa Architectura et complementa Artis Lullii*. Parisiis.
1583. *Artificiosarum Memoriarum Libellus Authore Thoma Watsono Oxoniensi, Juris Utriusque studioso*. MS.
1583. *Dickson, Alexander: De Memoriarum virtute Prosopopæia*. 8vo. London.

1584. Dickson, Alexander: *Libellus de Memoria verissima et recordandi Scientia*. 12mo. London.
1591. Joan, Mich: *Alberti de omnibus ingeniis augendæ Memoriarum liber*, 4°. Bonon.
1591. Bruno, Jordano: *De Imaginum et Idearum Compositione ad omnia inventionem et memoriarum generatres*, libri 8. France.
1593. Schenkel, Lamprecht: *De Memoria*, lib. i.
1595. Schenkel, Lamprecht: *Leodii Duaci*, lib. ii. Antwerpia.
1598. Schenkel, Lamprecht: *Brevis Tractatus de Utilitatibus et Effectibus Mirabilibus Artis Memoriarum*. Parisiis.
1600. F. Philippi Gesvaldi *Plutosofia*, Patav.
1600. Phoenix seu *Artificiosa Memoria* cl. I. V. D. et militis D. Petri Ravennatis *Juris Canonici olim in Patavino*. 4to. Vicentæ.
1602. *Ars Reminiscendi* Joan: Baptistæ Partæ Neapolitani, 4°. Neap.
1602. Siri, Victor: *Memoire Recondite dall' anno 1601*, 8 tom 4to.
1602. F. Hieronymi Marafoti Polistinusis Calabri Theologi *De Arte Reminiscentiæ*. 8°. Franc.
1602. Porta, John Baptista: *Ars Reminiscendi*. 4to. Neap.
1603. *Artis Memoriarum*: Joh. Sp. Herd. Francof.
1607. *Specimina duo Artis Memoriarum exhibita Lutetia Parisiorum*. 8°. Paris.
1608. *De Memoria ac Reminiscencia Discerptatio Sempronii Lancioni Romani ad mentem Philosophorum principum Platonis et Aristotelis concinnata*. Verona.
1609. Schenckelii *Methodus de Latina Lingua intra 6 menses docenda*. 8°. Argent.
1609. Cruschius, Melchior: *De Memori Bona Conservanda*. 8vo. Strasburg. Witt.
1610. Schenkel, Lamprecht: *Gazophylacium Artis Memoriarum*. Argentorati.
1610. Joh. Henr. Alstedii *Theatrum Scholasticum*. 8°. Strasburg. Herborn. Contained the *Gymnasium Mnemonicum*.
1610. *Brevis Delineatio de utilitatibus et effectibus admirabilibus Artis Memoriarum*. 12°. Venet.
1610. Joh. Henr. Alstedii *Systema Mnemonicum*. 8°. Franc.
1610. Bruxius, Adamus. *Simondes Redivivus, seu Ars Memoriarum et Oblivionis*. 4to. Lips.
1611. Joh. Henr. Alstedii. *Trigæ Canonicae*. 8°. Franc.
1617. Fr. Mart. Ravellini *Ars Memoriarum*. 8°. Franc.
1617. Schenckelii detectus. seu *Memoria Artificialis*. Joh. Paep. Galbaicus. 8°. Lugduni.
1617. *Utriusque cosmi majoris scilicet, et minoris Metaphysica, Physica, Technica Historia*, auctore Roberto Fludd. 2 tom. fol. Openh. et Franc.
1618. Apsinis Græci *Rhetoris, de Memoria*. Fed. Morell. Paris.
1618. *Inæstimabilis Artis Memorandi Thesaurus*. Ab Adamo Naulio. Paris.
1618. *Mnemonica, sive Ars Reminiscendi*. Johan. Willisso. London.
1618. Paep, Joh. ΕΙΣΑΓΩΓΗ, seu *Introductio Facilis in Praxim Artificialis Memoriarum*. 12mo. Lugd.
1619. Martin Sommers: *Gazophylacium Artis Memoriarum*. Venice.
1620. *Ars Memoriarum Localis*. 8°. Lips.

1620. D. Joannis Velasquez de Azevedo Fenix de Minerva y Arte de Memoria que ensenna sin maestro á prender y retenir. 4°. Madrid.
1620. Artis Lullinæ, seu Memorix Artificialis Secretum explicitum, per. R. P. F. Hugonem Carbonellum. 8°. Paris.
1628. Lettera a Andrea Valieri ove si tratta della Memoria locale e del modo facile per acquistarla. MS.
1628. Magazin des Sciences, ou Vray l'Art de Memoire, par Adrian le Cuirot. 12°. Paris.
1628. Jones, John: Sacra Ars Memorix, ad Scripturas Divinas in Promptu habandas, &c., accommodata. 8vo. Douay.
1629. Godoy, Jo. Gutherez de. Disputationes Philosophicæ et Medicæ super Aristotelem de Memoria. 4to. Madrid.
1635. Tractatus de Memoria Joh. Conradi Dannahaveri. 8°. Argent.
1639. Meyssonerus in Pentagono Philosophico-Medico, sive Arte novæ Reminiscentiæ. 4°. Lugd.
1640. Ars Memorativa inventiva et applicativa Raimundi Lullii; 12°. Cadom.
1641. Burke, Thos.: Scripture Inquiry, or Helps for Memory in the Duties of Piety. 8vo. London.
1643. Arnold Backhuys: Memoria artificialis Lamberti Schenckely. 12° Colon. Agrip.
1648. von Winkelmann, Stanislaus (?) Mink. Relatio Novissima ex Parnasso de Arte Reminiscentiæ. Giessen.
1651. Ars Mnemonica, sive Herdsonus Bruxiatus; vel. Bruxus Herdsonatus. 8°. London.
1651. Herdson, Henry: Ars Memorix. The Art of Memory. 8°. London.
1653. Saunders, Richard: Art of Memory. London.
1654. L'Œuvre des Œuvres, ou le plus parfait des Sciences. Steganographiques, Paulines, Armezelles, et Lullistres, par Jean Belot. 8°. Lugduni.
1654. Fax Nova Arti Memorix localis accensa. 8°. Lips.
1661. Mnemonica; or the Art of Memory. John Willis. Trans. by Sowersby. 8°. London.
1669. Athanasii Kircheri: Ars Magna Sciendi in xii Libros Digesta. Fol. Amstelod.
1678. Variorum de Arte Memorix. Tractatus Sex. 8°. Leipsic.
1683. Shaw, John: The Divine Art of Memory. Trans. by Simon Wastel. 12°. London.
1685. Wallis, John: The Strength of Memory.
1691. Leadbetter, Arthur: Arithmetical Rules Digested for the Help and Profit of Memory. 8vo. London.
1695. Ars Magna et admirabilis specimenibus variis confirmata. 8°.
1697. Copia specimeniarum Artis Memorix. 8°. Leodii.
1697. D'Assigny, Marius: Art of Memory. London.
1699. D'Assigny, Marius: Quædam Regulæ ad Imbecilles Memorias Corroborandas. 8vo. London.
1701. Buffier, Claude: Pratique de la Mémoire Artificielle. 3 vols. Paris.
1702. Ars Memorix vindicata. D. Jo. Brancaccio Panormi.
1708. Fr. Guivard: Traité de Mnémotechnie, Lille.
1715. Erhardt, Thomas: Ars Memorix. 3 vols. 8vo.

1722. Falster, Christian: *Memoriæ Obscuræ*. 8vo. Hamburg.
1723. Cannac, P.: *Ph. Dissertatio Physica de Memoria*. 4to. Geneva.
1730. Grey, Richard: *Memoria Technica*. 8vo. London.
1737. Lowe, Solomon: *Mnemonics Delineated*. 8vo. London.
1747. Dan. Geo. Morhofii: *Polyhistor Literarius Philosophicus et practicus*. 2 tom. 4to. Lubecæ.
1750. Hell, Maximilian: *Adjumentum Memoriæ Manuale Cronologico, Genealogico, Historicum*.
1752. Hill, William: *Memory of Language and Rhyming Expositor*. 18mo. 1s. 6d. London.
1753. Roeder, Paulus: *Memoria Ebneriana*, fol. Norimb.
1757. Fairchild, A. J.: *System of Acquiring the French Language*. 12mo. 3s. 6d. London.
1773. Evans: *The Tablet of Memory; or, the Historian's Assistant*. 12mo. 1s. 6d. London.
1775. Hay: *The Tutor's Observations on Memory*. 8vo, 1s. London.
1781. *Cartas Eruditas y Curiosas*, por D. Fr. B. J. Feyjoo: 4°. 5tom. Madrid.
1783. Helps for Short Memory. 12mo. 6d. London.
1783. Beattie, James: *Dissertations, Moral and Critical, on Memory and Imagination*. 4to. London.
1801. Graffe: *Katechetisches Magazin*. 8vo. Goettingen.
1804. Kästner, Chr. A. L.: *Mnemonik oder System de Gedächtnisa*. Leipsic.
1804. Kästner, Chr. A. L.: *Kunst der Alten*. 8vo. Leipsic.
1804. Klüber, J. S.: *Compendium der Mnemonik*. 4to. Palermo.
1804. Klüber, J. S.: *Mein Contingent zur Geschichte der Gedächtnisübungen in den ersten jahren des 16 jahrh.* Nürnberg.
1804. von Aretin, J. C.: *Denkschrift über den wahren Begriff und Nutzen der Mnemonik*. Munich.
1805. Kästner, Chr. A. L.: *Leitfaden zu einer Unterhaltung über die Mnemonik*. 8vo. Leipsic.
1805. Kästner, Chr. A. L.: *Dessen Uebersetzung der drei Stellen bei der Alten von der Gedächtniskunst*. Leipsic.
1805. Morgenstern: *De Arte veterum Mnemonica*. Fol. Dorp.
1806. von Aretin, J. C.: *Theorie der Mnemonik*. Nürnberg.
1806. von Feinaigle, G.: *Notice sur la Mnémonique*. Paris.
1810. von Aretin, J. C.: *Systematische Anleitung zur Theorie und Praxis der Mnémonique*. 8vo. Sulzbach.
1811. von Feinaigle, G.: *Mnemonik nach den Vorlesungen desselben*. Frankfort a. M.
1811. Pupil of Feinaigle: *Practische Gedächtnisse nach den Vorlesungen des Herrn Gregor von Feinaigle*. Frankfort a. M.
1812. von Feinaigle, Gregor: "The New Art of Memory, to which is prefixed some accounts of the principal systems of artificial Memory from the earliest period to the present time." 12mo. 12s. London.
1813. Cogland, Thomas: *Improved System of Mnemonics*. 8vo. 9s. London.
1813. Needham, S.: "Reminiscentia Numeraris; or, the Memory's Assistant." 12mo. 2 vols.

1817. Jackson, G. : *New and Improved System of Mnemonics*. 4s. London.
1818. Murden, J. R. : "Art of Memory." New York.
1823. Aimé Paris and Adrien Berbrugger : "Résumé des diverses spéculations étudiées dans les cours de mnémonique." 3 fr. Paris.
1825. Exposition et pratique des procédés mnémoniques. 6 fr. Paris.
1826. Paris, Aimé : *Mémoire (de la)*.
1826. Gayton, J. R. : *Memoria Philosophica*. 10s. London.
1827. Paris, Aimé : *Lettre à M. Fred. Come, avocat et professeur de mnémonique*. Paris.
1827. *Objet des cours (de mnémonique)*. Paris.
1828. Paris, Aimé : *Première suite autographiée d'applications spéciales de la mnémotechnique. Applications de la musique*. 2fr. Paris.
1828. Kästner, Chr. A. L. : *Briefe über die Mnemonik*. Sulzbach.
1828. Peckstone, T. S. : *Chronological Chart of the Patriarchs*.
1829. Darby, W. : *Mnemonica*; or, *The Tablet of Memory*.
1829. Paris, Aimé : *Souvenirs du cours de mnémotechnie*. 2fr. Paris.
1829. Paris, Aimé : *Cours de mnémotechnie*. Paris.
1829. Goodluck, W. R. : *View of the World*.
1830. Snooke : *Calendar of Memory*.
1831. de Castilho : *Recueils de Souvenir de Mnemotechnie*. Saint Milo.
1831. Kästner, Chr. A. L. : *Mnemonices quaedam in scriptura sacra vestigia*.
1832. Beniowski's *Phrenotypics*.
1834. de Castilho, A. M. & J. F. : *Traité de Mnémotechnie*. 6th ed. Bordeaux.
1834. Paris, Aimé : *Mémoire adressé . . . de mnémotechnie à l'École normale*. Paris.
1834. Paris, Aimé : *Principes et applications diverses de la mnémonique*. 12fr. Paris.
1835. De Castilho A. M. & J. F. : *Dictionnaire Mnémonique*.
1838. Valpy : *Poetical Chronology*.
1838. Jukes, Mrs. : *Aids to Memory*.
1839. Bem, J. : *Exposé Général de la Méthode Mnémonique Polonaise perfectionnée à Paris*. Paris.
1839. Knott, R. R. : *New Aid to Memory*. 1s. London.
1841. Bassle, G. A. : *System Mnemonique*. London.
1842. von Mailath, Johann : *Mnemonik*. Vienna.
1842. Beniowski's *Handbook of Phrenotypics*. 4s. London.
1843. Otto, Carl (Reventlow) : *Lehrbuch der Mnemotechnik*. Stuttgart.
1843. Imeson, W. T. : *Phrenotyphonicon*. 6d. London.
1844. Laws, T. F. : *Phrenotypics*. 8vo. Manchester, England.
1844. "J. W. D. : " *New Science of Artificial Memory*. New York.
1844. Otto, Carl (Reventlow) : *Wörterbuch der Mnemonik*. Stuttgart.
1844. Cannon, J. W.
1845. Fauvel-Gouraud, Francis : *Phrenomnemotechnic Dictionary*. \$1.75. New York.
1845. Fauvel-Gouraud, Francis : *Phrenomnemotechny*. \$2.00. New York.

1845. Hallworth, T.: Rational Mnemonics.
1846. Pike R. and W. C.: Mnemonics. Boston.
1846. Harris, L. H.: Mnemonics; or, Philosophical Memory. Newark, Ohio.
1846. Johnson, L. D.: Memoria Technica. Boston.
1846. Johnson, L. D.: Memoria Cyclopædia, or the Art of Memory. Taunton, Mass.
1846. Fowler, O. S.: Memory and Intellectual Improvement. 75c. New York.
1846. Otto, Carl (Reventlow): Leitfaden der Mnemonik. Stuttgart.
1847. Hill, Wm.: Educational Monitor.
1848. Kothe, Hermann: Lehrbuch der Mnemotnik. Hamburg.
1848. Pick, Edward: Mnemonics and its Application to the Study of History.
1848. Miles, Pliny: American Mnemotechny. 75c. and \$1.00. New York.
1848. Miles, Pliny: Elements of Mnemotechny. 25c. New York.
1849. Day, William: Mnemonical Chart and Guide to the Art of Memory. New York.
1849. Hamilton's Mnemonic Chronology of British History. 7s. London.
1849. Brayshaw, T.: Metrical Mnemonics, Applied to Geography. 12mo. 6s. London.
1852. Bradbury, H. P.: Cogland's Mnemonics. Louisville.
1852. Moigno, Abbé: Manuel de Mnémonique. Paris.
1852. Kirkman, T. P.: Mnemonic Lessons in Geometry, Algebra, and Trigonometry. 1s. 6d. London, Crosby, Lockwood & Co.
1852. Hill, Wm.: Memory of Languages. 5th ed. London.
1853. Cumming, J. G.: Chronology of Ancient History. London.
1853. Kothe, Herman: System der Mnemonick. Cassel.
1854. Kothe, Herman: Katechismus der Mnemotechnik. Leipsic.
1859. Parker, L.: Key to Philosophy of Memory. New York.
1861. Bacon, J. H.: The Science of Memory. 1s. 6d. London, Bateman.
1861. Otto, Carl (Reventlow): Mnemotischer Commentar zur Allgemeinen Weltgeschichte. Stuttgart.
1861. Pick, Edward: On Memory and Rational Means of Improving it. 8vo. 2s. 6d. London, Trübner. (5th Ed., 1873, 12mo, 1s.)
1862. Chase, S. C.: Mnemeology. Cincinn.
1862. Pick, Edward: New Methods of Studying Languages. French. 12mo. 3s. 6d. London, Trübner.
1863. Jones, John: How to Remember Sermons and Lectures. Liverpool.
1864. Slater, Mrs.: Sententiae Chronologicae.
1865. Stokes, William: On Memory. 1s. London, Houlston & Son.
1866. Williams, Lyon: Science of Memory. London, Nisbet & Co.
1866. Haney, J. C.: Art of Memory. 51 pp. 15c. New York, J. C. Haney & Co.
1866. Stokes, William: The Divine Origin of Mnemonics. 1s. London, Houlston & Son.
1866. Girdlestone, E. D.: Memory Helped, or Dr. Grey's System explained. London.
1869. Mackay Alex.: Facts and Dates. 12mo. 4s. London, Blackwood.

1869. MacLaren, T.: *Systematic Memory*. 12mo. 1s. London, Pitman.
1870. Hill, William : *Local Suggester*. London.
1870. Crowther, George : *Crowther's Mnemonics*. London.
1873. Relton, Wm. : *Memory Almanac*. 6d. Liverpool.
1873. Macauley, Jas. : *Memory Helps in British History*. Glasgow.
1873. Nemos, W. : *Artificial Memory*. San Francisco, Bancroft.
1874. Fairchild's *The Way to Improve the Memory*. London.
1875. Courley, W. H.
1877. Head, F. W. : *Statutes by Heart*. 8vo. 1s. 6d. London, Stevens & Son.
1877. Begg, E. W. : *Mnemonics*. \$1.50. Cincinnati, Chase & Hall.
1877. Sayer, T. A. : *Aids to Memory*. London, Dalby, Isbister & Co.
1877. Younghusband, J. H. : *How to Remember*. 2s. London.
1880. Hartley, Chas. : *How to Improve the Memory*. London.
1880. Laurie, Thos. : *The Whole Art of Memory*. London.
1880. Granville, J. M. : *Secret of a Good Memory*. 1s. London. Bogue.
1880. Appleby, F. : *Phonetical Memory*. 1s. London, Pitman.
1882. Fitz-Simon, E. A. : *Historical Epochs, with System of Mnemonics*. 12mo. 50c. N. Y., Taintor.
1882. Middleton, A. E. : *Memory Aids and How to Use Them*. London.
1882. Wollacott, F. C. : *Phrenotypes ; or, The Science of Memory*. 6d. London.
1882. Dalziel, Allan : *Mnemonics Applied to History*.
1884. Stokes William. Houlston & Sons, London. *Rapid Arithmetic*. 1s. *Rapid Drawing*. 1s. *Rapid Music*. Part I. 1s. *Memory-Aiding Music Staff*. 1s. *Memory-Aiding Music Scales*. 1s. *Pocket Key-Board*. Piano, &c. 1s. *Pictorial Multiplication*. In Book or Sheet. 1s. *Memory-Aiding Extended Multiplication Table*. 6d. *Historical Chronometer*. 2nd Edition. 4to, paper case, 1s. *Mnemonical Globe*. 17th Thousand. In case, coloured, 1s. *Memory Aids for England and Wales*. 6d. *Memory Aids for Elocution*. 6d. *French Genders in Five Minutes*. 6d. *German Genders simplified*. 6d.
1885. Miller, Adam : *Mental Gymnastics*. \$1.00. Chicago, Miller.
1885. Middleton, A. E. : *All about Mnemonics*. 1s. London.
1886. Appleby, F. L. : *Loisette's Art of Never Forgetting compared with Mnemonics*. 6d. Pitman, London.
1886. Holbrook, M. L. : *How to Strengthen the Memory*. 12mo. \$1.00. New York, M. L. Holbrook.
1886. Boyd, A. S. : *Modern Mnemotechny*. Baltimore.
1886. Cohen, Gustavus : *Memory : How to Secure and Retain it*. London.
1886. Hedley, A. P. : *Natural Memory*. fol. 4 pp. 10s. 6d.
1886. Chavaudy, Abbé.
1887. Appleby, F. : *Natural Memory*. 15s. London.
1888. White, W. W. : *Natural Method of Memorizing and Memory Training*. \$5.00. New Haven, Connecticut.
1888. Kay, David : *Memory : What it is, and How to Improve it*. Post 8vo. 6s. London, Kegan Paul, Trench & Co.

1888. Pick, Edward: *Memory and its Doctors*. 18mo. 1s. London, Trübner.
- N. D. Middleton, William: *The Art of Memory*. 8vo. v. Copeland, B., London.
- N. D. Petrus Colonise Ars Memorativa. 4°.
- N. D. Incipit Ars Memorise Venerabilis Baldonini Sabodiensis. 4°.
- N. D. Paris.
- N. D. Anacardina à la Arte de Memoria.
- N. D. Joh. Aguilera de Arte Memoria.
- N. D. Epiphani de Moirans Ars Memorise admirabilis omnium nescientium excedens captum.
- N. D. Franc: Conti de Arte Memorise.
- N. D. Hieronymus Megiserus de Arte Memorise.
- N. D. Alvaro Ferreya de Vera: Trattato de Memorise artificiosa.
- N. D. Nelson: *Memory*.
- N. D. Watson: *Compendium Memorise Localis*. 8vo.
- N. D. Copland, Robert: *The Art of Memory*. 8vo. London.

PERIODICAL LITERATURE

- Mnemonics, *Chambers' Journal*, 43:619..... 1866
- Revue de Mnémonique* (Monthly), Ed. by Abbé Chavanty. 1886
- Memory, (O. A. Brownson,) *Democratic Review*, 12:40 .. 1843
- Southern Literary Messenger*, 4:680..... 1838
- Fraser*, 29:546 1843
- Museum of Foreign Literature*, 5:391 1824
- (J. Hamilton) *Good Words*, 5:148..... 1861
- Same article, *Eclectic Mag.*, 62:104..... 1838
- Memory, (A. J. Faust,) *Appleton's Jour.*, 24:524..... 1880
- R. Usher, *People's Jour.*, 7:244..... 1848
- Chambers' Jour.*, 54:349..... 1877
- Blackwood's*, 128:421..... 1880
- Same article, *Eclectic Mag.*, 95:729..... 1867
- Christian Observer*, 34:517,581 1834
- And Absence of Mind, *All The Year Round*, 26:365.... 1871
- And Its Caprices, *Littell's Living Age*, 34:606..... 1851
- And the Will, *Littell's Living Age*, 139:56 1878
- Art of, *Analectic Mag.*, 4:117..... 1814
- Art of (F. Bowen), *No. Am. Rev.*, 61:260..... 1845
- Art of, *Chambers' Jour.*, 42:342..... 1865
- Artificial (R. J. Wilmot), *London Quar. Review*, 9:125 . 1813
- Cornhill*, 29:581..... 1873
- Same article, *Eclectic Mag.*, 83:18..... 1874
- Artificial, *Dublin Rev.*, 81:172 1877
- Intellectual Power, *Littell's Living Age*, 84:513..... 1864
- Curiosities of (A. Young), *Lakeside*, 8:128..... 1872
- Chambers' Jour.*, 51:157..... 1874

Memory, Double (G. C. Robertson), <i>Mind</i> , 1:552	1876
Essence of, <i>Dublin Univ. Mag.</i> , 92:95	1878
Experiments in, <i>Science</i> , 6:198	
Fallacies of (F. B. Cobb), <i>Galaxy</i> , 1:149	1866
Feinaigle's New Art of, <i>Eclectic Rev.</i> , 18:321	1813
Illusions of, <i>Cornhill</i> , 41:416	1879
Same article, <i>Littell's Living Age</i> , 145:432	1879
Same article, <i>Eclectic Mag.</i> , 94:686	1879
In Education, <i>Westm.</i> , 2:393	1876
Keys of, <i>Temple Bar</i> , 13:202	1864
Morbid, <i>Once a Week</i> , 3:285	1860
Offices and Moral Uses of, <i>Christian Exam.</i> , 56:209	1853
Of Faces, <i>Spectator</i> , 58:1258	
Phenomena of (S. H. Dickson), <i>Lipp.</i> , 3:189	1868
Physiological, (R. W. Brown), <i>Sc. Am. Sup.</i> No. 429 ..	1834
Process of (I. Orr), <i>Am. Jour. Sci.</i> , 23:278	1832
Remarkable Cases of (W. D. Henkle), <i>Jour. Spec.</i> <i>Philos.</i> , 5:6	1871
Retentive of (A. Bain), <i>Fortn.</i> , 10:237	1868
Ribot (J. Sully), <i>Mind</i> , 6:590	1881
Training of, <i>Science</i> , 8:582	
Tricks of, <i>Knowledge</i> , Jan.	1888
Unconscious (G. J. Romanes), <i>Nature</i> , 23:285	1880
vs. Reason, <i>Tinsley</i> , 9:183	1871
Where and How We Remember (M. A. Starr), <i>Pop. Sci.</i> <i>Mo.</i> , 25:609	1884
Memories, Good , <i>Every Sat.</i> , 11:618	1871
Great, <i>Dublin Univ. Mag.</i> , 60:377	1862
Same article, <i>Eclectic Mag.</i> , 57:549	1862

PENETRALIA.

"Professor" Loisetette owed his great success in the lecture-field to Mr. R. F. Foster, until recently his business manager, audiences were secured for his introductory lectures such as he had never before addressed, and his classes (which had never exceeded two or three hundred) suddenly increased to more than a thousand. In a recent interview with Mr. Foster it was learned that he had given up a responsible and remunerative position with one of the largest manufacturing houses in Baltimore, to go with Loisetette, and spent twelve weeks in his New York office before going into the lecture-field with him.

This time was spent in thoroughly reorganizing the entire business. In December, 1887, Mr. Foster started on the road to organize the first class at the Michigan University, going thence to Baltimore, Detroit, Philadelphia, and Washington.

From Loisetette's contract with Mr. Foster, the following extracts are taken :—

"Said Foster to be employed as said Loisetette's assistant in said Loisetette's business of teaching the 'Loisettian System of Memory,' or the 'Art of Never Forgetting.' Said Foster to be employed either in travelling for the purpose of organizing classes in such places as hold out reasonable promise of a class of 200 or more, outside of N. Y. City, or in the instruction of classes in New York. It is further agreed that, as compensation for such services, said Loisetette agrees to pay said Foster one-fifth, or twenty per cent., of the total amount received from any class organized by said Foster after the expenses of organizing the class have been deducted."

According to Loisetette's own advertisements, the classes organized by Foster, are from December 10th to March 16th—fourteen weeks—as follows :

Michigan University	400
Baltimore, Md.....	1,087
Detroit, Mich.....	1,005
Philadelphia, Pa.....	1,500
Washington, D.C.....	1,100

Total number of pupils..... 5,092

Estimating the average expense for each city at \$500, we have \$2,500 to deduct from \$25,000, realized from 5,000 pupils at \$5 each. Of this Loisetette received about \$18,000 and Foster \$4,500, besides expenses. From this it would seem that a man must have strong reasons for resigning a position that had paid him over \$50 a day for more than fourteen weeks, and for which he had a four years' contract.

It might also be interesting to know what induced Loisetette to release a man who was putting \$1,300 a week into his pocket, which he

had to travel only a few miles, and talk about four hours a week to earn.

Mr. Foster is a native of Edinburgh, Scotland and is connected with some of the best families in Great Britain. Lord Kinloch, for many years Lord Provost of Scotland, was his first cousin, and he numbers among his immediate relatives the Bishop of Kildare, the Rev. Dr. Moody Stewart, and the Sandfords, of whom Sir Herbert is well known in America, having been British Commissioner to our Centennial in 1876. Knowing these facts, it was not surprising, on meeting Mr. Foster, to find that he was thoroughly ashamed of ever having had any connection with Loisetete.

He entered into his engagement on representations that Loisetete had a legitimate, well-established, and permanent business, and as no one appeared to dispute his claims, he supposed him to be the original and gifted man he professed to be. Mr. Foster soon discovered that he himself knew a great deal more of the "marvellous" system of memory in its practical application than Loisetete, who was as subject to mind-wandering and had as poor a memory as any of the mental wrecks whom he so vividly portrays as "mnemonical teachers." Suspicious of the genuineness of his claims to originality were first awakened by his obvious ignorance of the matter in his own lesson papers. For example, he pretended to teach thousands to do the Knight's tour, although he did not know a knight's move from a pawn's. Pupils, from time to time, called attention to the similarity of his system to others, especially to Pick's, as set forth in "Chambers's Cyclopædia."

When asked about these matters, Loisetete's stereotyped reply was that he had taught this system for over thirty years, and that a correspondence pupil in Germany gave the ideas in question to Pick, who came to England in 1862 and published them as his own. "The only correlation Pick gives in his book," Loisetete would say, "he stole bodily from me. All the rest is pure mnemonics, and rot." It is interesting to read the *Gazette de Lyon*, January 21, 1851, and the *Journal des Débats*, January 24, 1854, reporting Pick's lectures before the Inspectors-General of Public Education in Paris in this connection, especially when it is known that at that time, so far from Loisetete's being a memory teacher in London, he was an undergraduate at Yale College. Moreover, we have Loisetete's own testimony. In his prospectus, issued in London in 1883, may be found these words: "Due notice will be given in the daily newspapers of Professor Loisetete's *first public address in London*."

Among the unpleasant features of the office experience was the necessity of constant and well-sustained falsehood. Loisetete advertises certain coaching papers for which pupils constantly remitted money. As no such papers ever existed, except in his imagination, or possibly in London, his manager wanted to return the money, but Loisetete insisted on writing to the remitter that the present edition was exhausted and that another was in the hands of the printer, and copies would be mailed, etc., etc. Pupils' money was retained, and they were kept waiting for months on such excuses, some of them, like Mr. Julius King, of Columbus, Ohio, writing continuously, but in vain. Loisetete's "Whist Memory" is a deception and a fraud. Mr. Foster, an expert on whist, and author of "Whist at a Glance," soon found that the \$25 course in nothing to do with that game, but was merely a trick of re-

membering cards as dealt from the pack. This trick Loisetette himself was never able to do by his own system, and his pupils, if they ever studied it at all, found it to be not only a year's solid work, but absolutely worthless when learned. Discovering that Mr. Foster knew something worth teaching about the real article of whist, Loisetette proceeded to charge pupils \$50 for "Whist Inferences," intending to turn them over to him for their training. One of these, a Mr. Dodge, of Wall Street, insisted on personal instruction, and Loisetette having pocketed the \$75—\$25 for his "marvellous" memory system and \$50 for his (or Foster's?) "Whist Inferences"—tried to wheedle Mr. Foster's system out of him for his personal use and aggrandizement.

Unfortunately his ideas were not as easily stolen as Dr. Pick's, or this country might by this time be flooded with advertisements of "Marvellous Whist Discovery—perfect cure for ruffing—any trump signal learned in one evening—wholly unlike Cavendish." Failing to obtain even a hint from Mr. Foster, he bought a copy of every book on whist, and proceeded to learn the rudiments of the game, in order to give a New York club man and an expert player fifty dollars worth of "inferences." The outcome is not known, but the "inference" is that Loisetette was obtaining money under a false pretense and that Mr. Dodge was robbed. Loisetette's cure for "discontinuity," price \$10, consists in this: "Make a series of your own, consisting almost entirely of exclusions." Very few fish are caught on that hook. As to the \$50 "Art of Illustration," if any one has ever been foolish enough to subscribe for it, he can obtain a position in a dime museum on application.

One peculiar feat of memory the "Professor" was an adept in. He never forgot a face. So good was his memory in this respect that, if a man whom he had never seen before came into the office with a smile, and a "How do you do, Professor," he was always welcomed as warmly as an old pupil. This usually evoked the question, "Remember me, do you?" "Why certainly; recollect you perfectly." If the visitor had been a pupil he was much impressed, if not, he had to listen to a wonderful story of his marvellous resemblance to a pupil whom the "Professor" had not seen for twenty-two years. In Philadelphia he tried this confidence-game style of recognition on Mr. Lum Smith of the *Herald*, and of Comstock fame, at the same time refusing him a ticket to his lectures, which he greatly regretted when he found out who he was.

Some of his talks on Memory would do credit to Baron Munchausen, especially his "Bob Chase" story. When any one objected to his contract or picked flaws in it, his invariable formula was, "Never mind! Judah P. Benjamin drew up that contract and it has stood seven lawsuits!" Apart from the curious analogy between this statement and the German proverb about a "seven in every lie," it would be interesting to know why he should call on Judah P. Benjamin to draw up a contract for him, as he was himself a lawyer by profession and practised in Nevada during the sixties. It is a poor compliment to Benjamin's skill that the form of the contract has been altered twice within the past two years; the words, "in his own way in every respect" being added at one time, and "heirs, executors, administrators and assigns" at another. Considering the "marvellous" and "original" improvements Loisetette has made in memory-training it is not remarkable that he can improve on Judah P. Benjamin's legal documents.

Positive information came to hand at last, in confirmation of what had been long suspected, that Loisetle was not Loisetle at all. It has been pretty conclusively proved by Appleby, that Loisetle originally taught pure and simple mnemonics, with afterward a sprinkling of Dr. Pick's ideas! as he did not have the full benefit of the marvellous system he now teaches until a few years ago. The following from his own prospectus is peculiarly apropos: "Even if vivid imagination exist, and extraordinary memory too, then oftentimes the so-called 'association' does not recall the word it was framed to recall, as happened to me—then a practiced mnemonist," &c. It is to be feared that Loisetle's many pupils will shed tears when they hear to what a terrible extent his practice as a mnemonist has ruined his own memory, for one of the things his associations utterly failed to recall, for the reasons stated above, was his own name. In order that it may not be lost to posterity, we hope some brilliant pupil will correlate it to the register of Yale College, where it is to be found in the class of '54, thus:

MARCUS DWIGHT LARROWE,

born at Cohocton, Steuben Co., N. Y., May 5, 1832.

President Dwight, and some, at least, of the faculty, can easily point it out.

The final reason which induced his manager to throw up his contract, and that in spite of the protests of his many friends that he was only quarrelling with his bread and butter, is embodied in his letter of resignation, as follows:

908 MADISON AVE.,
BALTIMORE, MD.
25th Apr. 1888.

PROF. A. LOISETTE:

"DEAR SIR:—I wish to say to you that for some time past I have felt considerable alarm regarding the character of the man I have been engaged in introducing to the public, and this uneasiness has just culminated in the information that he has paid over \$1,000, either as damage or hush-money, in order to keep from the public a charge which I hoped, when I was first informed of the woman who made it, he would stoutly deny and defend himself against. I have for some time been aware of rumors that he was living under a false name, and that the whole account of himself was a series of falsehoods and misrepresentations. I have also been at some pains to investigate his career from the time he was at Yale College to the time he was engaged at the Polytechnic in London, and the general result, coupled with my own experience of him, has been such that I must decline, on moral grounds, to have anything further to do with him, as I do not propose to be caught in the branches when the tree falls. It has never yet been necessary for me to earn a livelihood by misrepresentation or fraud, and I decline to continue in any capacity which compels me to present and introduce to the public as a scholar, a gentleman, and a leader in the cause of education, one whom I know to be a humbug and a fraud.

Respectfully,
R. F. FOSTER."

MORE LIGHT.

Loisette, 1888.

To remember proper names, correlate the person's name to the name of some peculiarity of the person as *best known*, and which you are sure to think of whenever you think of the person.

Reverinlow, 1843.

You will give your attention to the moral impression which the person you meet makes on you in relation to the physiognomy, the deportment, and his whole manner, or you will compare him to another person, or you will look somewhere for some physical sign, which you will connect with the name of the person.

Appleby, 1880.

Required the day of the week for Jun. 18, 1848, date of Battle of Waterloo. 7) 1815 (2 and 1 over; 4) 1815 (3 and 3 over (not required); then 1 added to 3 = 4. Add day of week, 18 = 22, added to key number for Jun., which is 0, gives 22, and this divided by 7 gives 3 and 1 over, which is Sun., the answer required.

Loisette, 1888.

On what day was the 18th of Jun., 1815, the date of the battle of Waterloo?

Quotient of 15 by 4 = 3; remainder, 15 by 7 = 1; number of the date, 18; addendum for Jun. = 0; total, 22, which, divided by 7, leaves 1. *Answer*, first day, *i.e.*, Sun.

Compare Loisette's "key" for memorizing the British Regiments with the "key" used by other mnemonists.

<i>Loisette.</i>	<i>Other Mnemonists.</i>	<i>Loisette.</i>	<i>Other Mnemonists.</i>
1. Heath	Tea	11. Wetted	Date
2. Nigh	Noyea	12. Twine	Dine
3. Home	Home	13. Autumn	Time
4. Heir	Hair	14. Tear	Dear
5. Howl	Oil	15. Hotel	Dell
6. Wage	Shoe	16. Thatch	Dish
7. Key	Key	17. Duke	Duke
8. Wave	Fee	18. Tough	Taffy
9. Bee	Bee	19. Toby	Tabby
10. Ties	Daisy	20. Noose	Noose

MULTIPLICATION TABLE.

Loisette, 1888.

Sayer, 1867.

13 × 11 = 143	diadem—drama	tomtit—drum
13 × 12 = 156	autonomy—tillage	tempting—delicious
13 × 13 = 169	mummy—toyshop	tomb—the ship
13 × 14 = 182	Homer—deafen	tempter—divinity
13 × 15 = 195	meal—table	tame tale—tipple
13 × 16 = 208	match—unsafe	thumb dish—insufficient
13 × 17 = 221	mica—noonday	dumb dog—noonday
13 × 18 = 224	muff—enamour	tame dove—enamoured

WHIST MEMORY—LOISETTE, 1888. CASTILHO, 1881.

	1	2	3	4	5	6	7	8	9	10	Jk.	Qn.	Kg.	Diamonds.	Hearts.	Spades.	Clubs.
Castilho, 1881,	a	de	t	k	cein	si	se	h	n	dis.	v.	d.	R.	K.	eur.	P.	T.
Loisette, 1888,	a	d	tr	ca	cein	si	se	h	n	di	v	ra	ro	K.	R.	P.	T.
				or	or												
				q	quin												

	Diamonds.		Hearts.		Spades.		Clubs.	
	Castilho.	Loisette.	Castilho.	Loisette.	Castilho.	Loisette.	Castilho.	Loisette.
1	accroc	aoquit	assureur	arche	aspic	apôtre	astre	atre
2	decade	ducat	demeure	dard	depit	depot	detour	detroit
3	tic	trique	terreur	tarare	tape	trepied	traître	treteau
4	cacao	cacao	cosur	quart	cape	caporal	quatrain	caton
5	5 quarts	quinquet	5 henres	St. Remy	simple	Simplon	ceintre	ceinture
6	cyclope	Sicile	scieur	sirop	cypres	sciplon	citron	cythère
7	sec	sécatenr	seigneur	serenade	cep	sepia	sceptre	seton
8	hoquet	hoquet	hurlleur	heron	huppe	huppe	huitre	hutte
9	nuque	nuque	nageur	neron	rappe	rappe	neutre	natte
10	disque	digne	disconreur	diorama	dispute	Dieppe	distrat	diète
Jk.	vacarme	vicomte	valeur	verre	vampire	vapeur	ventre	vêtement
Qn.	d'accord	rack	dansneur	rare	d'api	râpe	dartre	râteau
Kg.	roc	roc	railleux	ronron	râpe	Europe	retour	rôté

All of the preceding comparisons are taken from Appleby.

INDEX.

ABERROMBIE, 18
 Abstract and concrete, 13, 32
 Abstracts of books, 186
 Abuse of memory, 17
 Almanac, 15, 144
 Analysis, 86
 and synthesis, higher, 147
 Analytico-synthetic method, 127
 Anatomy, 106, 108, 109, 112
 Anecdotes, 76, 78, 157, 195
 Aristophanes, quotation from, 66
 Aristotle, 13
 Association, 19, 45
 Attention, 31, 75, 76

BACON, quotation from, 17
 Bain, Alexander, quotation from, 13, 18
 "Barometer," by a lunatic laureate, 132
 Bibliography of mnemonics, 207
 Boat race, Oxford-Cambridge, 118, 201
 Book-keeping, 155
 Book, Reading of, 13, 181
 Botany, 178
 Bowen, Francis, quotation from, 13
 British regiments, 114

CHAMBERS'S "Encyclopædia," quotation from, 13
 Chemistry, 66, 155
 Chestnuts, 5, 76, 78, 157, 195
 Circumference, ratio of, to diameter, 14, 121
 Coaching papers, 167
 Concurrence, 13, 19, 33, 56
 Contract, 8
 Conundrums, 195
 Correlation, predicating, 116
 Correlations, 92
 Cranial nerves, names and uses of the nine pairs of, 112

DATES, 58
 of birth and death, 98
 Day of the week of any date in the century, 146
 Derby winners, 154, 204
 Dough, dodo series, 40, 63, 68

EUCLID, 152
 Evolution, Spencer's definition of, 141
 Spencer's definition of Kirkman's trav-
 esty, 141
 Exclusion, 13, 19, 33, 56
 Aristotle on, 13
 Pick on, 19

FACTS, isolated, 90, 93
 serial, 90, 100
 Figure alphabet, 58
 dictionary, 69
 memory, 137
 Figures translated into words, 73
 First impression, 19, 31
 Foreign words, 95
 Foster, R. F., 217
 French, 23, 96, 104
 Fretwell, John, quotation from, 17, 19

GEHAZI, 190
 Geometry, 152, 155
 German, 12, 25, 97, 105
 Genus and species, 13, 33
 Gordian knot, 143
 Greek, 66, 96, 105, 194

HEPTARCHY series, 44, 70
 Historical events, 16, 100
 History of English People, Green, 186, 187
 Holbrook, M. L., 17, 18, 209
 Homophone, 15, 100
 Huxley, quotation from, 116

IMAGINATION, legitimate use of, 50
 Impression, first, 31
 Inclusion, 13, 19, 32, 55
 Interrogative analysis, 79, 103, 127, 131, 164,
 202
 Ireland, counties of, 180
 Italian, 98

KAY, DAVID, 209
 Killick, A. H., abstract of Mill, 183
 Kings of England, 20, 61, 63, 100, 216
 Knight's tour, 14, 67, 200

LATIN, 96, 194
 Latitude and longitude, 159
 Law, 160
 Laws of memory, 13, 45
 of recollective analysis, 13, 45
 Learning by rote, 54
 Lectures mentally reported, 197
 Loisetian roll of honor, 43
 spy-glass, 192
 watch, 158
 Longest word, ancient, 66
 modern, 66
 Lunatic laureate, 132

MACLAREN'S "Systematic Memory," 49

Macready, anecdote, 157

Masorites, 53

Memory athletics, 43

of comprehension, 173

of retention, 173

problems of, 78

training, 17, 45

Middleton, A. E., 17

Military tactics, 18, 188, 209

Mind wandering, 74

Mnemonics, 49, 87, 101, 106, 111, 114, 176

Mnemonical picture method, 49

story method, 49

Modern words, 95

Months and days memorized, 150

More light, 221

Mother Day series, 13, 64, 80, 123

Mountains, height of, 15, 16, 64

Morse alphabet, 112

Multiplication table, 156

NAMES, proper, 16, 93

Numbers, 53

OTTO, Carl Reventlow, 106

Oxford-Cambridge boat races, 118, 201

PENETRALIA, 217

Pharmaceutical preparations, 138

Physiological memory, 11

Pick, Dr. Edward, 18, 26, 106

Picture method and the key, 52

Poetry memorizing, 127

Poisons and their antidotes, 141

Precocious youth, 9, 43

Predicating correlation, 116

Presidential series, 34, 50, 62, 70, 190

Prime ministers of Victoria, 111

Prose, memorizing, 127

Psychologists, errors of, 46

QUESTIONS, 48, 71, 72, 73, 78

RATIO of circumference to diameter, 121, 203

Recollective analysis, 48, 58

Rest from work, 115

Retentiveness, 41, 117

Reventlow (Carl Otto), pupil of, 106

Riddles, 197

Rivers, length of, 15, 16, 64

Roman emperors, 151

Rote, learning by, 54

Rules for making correlations, 92

SERMONS, 189, 197

Seven ages of man, 164

Similarity, 46

of sound, 33

Simple inclusion, 33

Speaking without notes, 189

Specific gravity, 66, 100

Spy-glass, Loissetian, 192

Stories, 76, 78

Story Method, 50, 51

Synonymes, 32

Synthesis, recollective, 86

**TAIT, C. W. A., analysis of Green's "His-
tory,"** 186

Telegraphic alphabet, 113

Time, 158

VERBAL memory, 172

WATCH, Loissetian, 158

Welsh village, name of, 66

Whole and part, 33

Wilson, Andrew, quotations from, 18

DISTRICT OF COLUMBIA, ss.:

G. S. Fellows, being first duly sworn, deposes and says that he has carefully examined the foregoing volume from page 29 to page 205, and that the same is an exact copy of Professor Alphonse Loissette's System, entitled "Physiological Memory; or, The Instantaneous Art of Never Forgetting," as the same was furnished by him to his pupils in Washington, typographical errors alone excepted.

G. S. FELLOWS.

Subscribed and sworn to before me by the said G. S. Fellows this 18th day of June, A.D. 1888.

EDWARD J. STELLWAGEN,

[L. S.]

Notary Public, etc., etc.

I was full angry! You
ought to see the letter today
about my article. My ad.
has crossed -

I suppose a private class
of 50 might answer - at
usual rate for private
classes - \$50 for 1st &
\$5 for each additional
member -

Or if that would be
too much, \$5 for each
of 50 & no head teacher.

I leave tomorrow night
for Rotterdam -

Send me there an account
of expenses incurred by you
just to date -

I had no idea of your
taking so much time
with those two places.
Still I hope you are
getting up big classes
in both N.Y. & Balt.

Remember there is no
other point

Yours
J. Loiseleur