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HANDBOOK OF PHRENOTYPICS

FOR

TEACHERS AND STUDENTS.

BY

MAJOR BENIOWSKI,

THE DISCOVERER OF THESE PRINCIPLES OF THE ART OF MEMORY.

PART I.

DEVELOPEMENT OF THE PRINCIPLE OF FAMILIARITY.

Entered at Stationers' Hall.

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TWO DOORS FROM COVENT GARDEN THEATRE.

MDCCKLII.

INTRODUCTORY REMARKS.

NOTWITHSTANDING the great advantages I derived both for myself and others from the various systems of Mnemonics which I made use of from my earliest infancy, I continually felt the want of some principles which might serve as tests for the purpose of estimating the merits or demerits of each system, and without which principles, those who attempt to apply mnemonic contrivances empirically, must continually be tired, perplexed, and disappointed to such a degree as to make them often underrate, nay, disregard and finally reject as injurious and dangerous, those very engines which, if modified and directed by the hands of principle, would prove to be in reality as gigantic,

B



safe, and docile assistants for the powers of the mind, as the steam engine is for those of the muscles, when managed by an engineer whose practice is not empiricism, but a continual, persevering, and rational application of the principles of mathematics, mechanics, and experimental philosophy. Without a knowledge of these principles, the least mischief, owing to the *imperfection* of the engine, or to accident, would easily be construed by the ignorant or ill-intentioned into unanswerable reasons for the condemnation and execution of the greatest benefactors of the present age,—the steam-engine and the railroad. And so it is with the intellectual engines: some of their imperfections and accidental individual disappointments are easily construed by the ignorant and ill-intentioned into unanswerable reasons why Mnemonics, and what I sincerely believe destined to become the engine of engines—Phrenotypics—should be treated with contempt, and thus the power of powers, the mind, left unassisted.

Long, long, labour, and little rest, in the practical field of memory—numerous observations carefully gathered together, perseveringly compared and meditated upon, have, I flatter myself, brought to my view principles, which may serve as leading threads through the hitherto long, often obscure and inextricable, labyrinth of Mnemonics. These principles appear to me, and to my numerous

pupils, and judges equally as to a host of pirates worthy of being embraced, relied, and acted upon by those who really pant for the acquisition and communication of knowledge with the least possible delay.

With these principles in my hands, I have analyzed the mnemonic contrivances that have been at various epochs devised for the purpose of assisting the memory ; and found invariably that the degree of usefulness, power, and practicability of these contrivances, depended strictly upon their being, more or less, in accordance with such principles ; and thus I was induced to reject a good many of the established systems, to modify others ; and step by step, I have devised new combinations, systematized them, and practically applied them to almost every branch of human study.

This new edifice, as erected upon the rocky foundation of principles discovered by myself, I thought it just and expedient to baptize with a new name, created by myself also : Phrenotypics is the name which I composed for that purpose on the 5th of July, 1841.

NOTION.

By the word *Notion* I will understand *any thing* that stands before the mind, in reality or in imagination;—a general term, comprehending all and any other possible human term.

FAMILIARITY OF NOTIONS.

By the expression, *familiarity of a notion*, I will understand the acquaintance with that notion. Thus the expression “*The notion table is very familiar to me,*” will be synonymous with the expressions “I am much acquainted with a table;—I know a great many properties and circumstances relating particularly to a table.” The expression “*The notion elephant is not so familiar to me as the notion table,*” will be synonymous with the expressions “I am less acquainted with elephant than with table;” “I know less about the properties and circumstances relating particularly to elephant, than about those relating to table.”

SYMBOLS.

By this series of symbols—



I will understand a series of more or less familiar notions; the number of rays expressing the comparative degree of familiarity; *e.g.* table is 

elephant is  will mean that table is three times more familiar to me than elephant. The following series will convey the idea of the comparative degree of my familiarity with table, ink, lion, zodiac, chicholo.

table.	
ink	
lion	
zodiac	
chicholo	

The symbol O without any rays will represent a notion, the familiarity of which is equal to nothing.

But such *absolutely* not-familiar notions we never find in practice; the new-born child only has to meet with notions of which it knows as yet *nothing at all*—or in other words, of which neither the color, shape, hardness, or any other property or circumstance ever met its senses before.

The number of degrees and shades of familiarity is infinite, taking, however, extremes we shall have two classes, viz.—

1. Familiar notions,
2. Not-familiar notions.

For a standard of extreme familiarity I will take the notion *table*. Those notions that are very far less familiar than table, I will call *not-familiar* notions.

As a symbol for *familiar* notions in general, I will employ 

As a symbol for *not-familiar* notions in general, I will employ 

REMEMBERING, RECOLLECTING.

What people call *remembering* or *recollecting*, is nothing but the springing up of notions before the mind, which are exactly similar to those that did stand before the same mind on some former occasion; *e. g.*—

We say we remember, or we recollect, the name of such a person, the date of such a fact, the symptom of such a malady, the medicinal property of such a plant, the English meaning of such a foreign word, the movement of such an army, the geographical or topographical position of such an object, &c. &c.—when that name, that date, that diagnostic symptom, that medicinal property, that English meaning, that movement, &c. &c., do, *when wanted*, spring up before the mind exactly similar to those that did stand before the same mind on some former occasion.

By the expression, *when wanted*, I mean when the respective person, fact, malady, plant, &c., is given.

NOTICING.

When a *number* of notions strike simultaneously our senses, we are not always aware of *all* of them; we notice *some* of these notions in preference to *others*;—*e.g.* When several individuals gaze from London Bridge upon a certain spot of the Thames, all the thousands of notions which cover that spot will paint themselves upon each of the living retinas, and exert an influence through the optic nerves upon all the brains standing upon the bridge; but not all these notions will be equally noticed by each individual brain: one will notice nothing but smoke and paddle-wheels; he will declare that

there were neither ladies nor musicians ; another will, on the contrary, notice ladies in preference to smoke and paddle-wheels ; a third, perhaps, will have seen neither smoke, paddle-wheels, nor ladies ; he was particularly struck with the presence of a Spanish cat, or English dog, &c. &c.

The noticing some notions in preference to others, will depend upon a variety of circumstances, which would be too long, and besides not indispensably necessary, to be enumerated here ; suffice that *some* notions *are* noticed, and others *are not*, although, in reality, *they do all stand stubbornly before the senses*. And so it is with regard to notions that spring up and stand before the imagination ; *some of them are noticed*, and *some of them are not* ;—*e. g.* the notion of the pen with which I am writing makes jump up before my mind the person of the stationer of whom I bought it, and also the shelves that were behind him ; but I must not suppose that this notion, my pen, has brought before my imagination nothing else besides the stationer and his shelves ; the notion, my pen, has, in reality, brought before my imagination *a host* of notions, but I have not noticed them *all*. I have noticed the stationer and his shelves in preference to all the rest : this preference will depend upon a variety of circumstances, which would be too long, and besides not indispensably necessary, to be enumerated here—suffice it to know that *some* of the sprung-

up notions *are* noticed, and others *are not*, although in reality *they do all stand stubbornly before the imagination.*

That all the notions that stand before the eye in the same field of vision do *all* paint themselves upon the RETINA, although they are *not all noticed*, has been proved by absolute physical experiments—(artificial eyes, camera obscura, the daguerreotype, &c. :) but that there are notions jumped up, and standing before the eye of the imagination, besides those noticed by us, is, I acknowledge, an hypothesis of my own; an hypothesis which I wish to be believed, relied, and acted upon, for the following reasons :—

1. It cannot be proved to be false.
2. It has analogy from the external senses in its favor; and above all,
3. It serves, as we shall see hereafter, a useful purpose.

COMMITTING TO MEMORY.

The committing to memory languages, sciences, and arts, although it does include various and numberless tasks, is, however, always reducible to one and the same but variously modified problem, viz.—*Having agreed upon it that certain two notions*

should always follow one another, we want to make it sure that whenever one of these two notions shall be presented to our brain, the other notion should immediately spring up before the same brain;—e. g. Having agreed upon it, that the name of the discoverer of the principles of attraction is Newton, or, in other words, having agreed upon it that the two notions, viz. (a) the discoverer of the principles of attraction, and (b) Newton should always follow one another, we want to connect these two notions so strongly together, that whenever the notion (a) is given, the notion (b) should immediately spring up before the imagination, and *vice versa*.

Having agreed upon it that Demosthenes died 313 B.C., we wish to connect the notion (a), death of Demosthenes, with (b) 313 B.C. so strongly, that whenever (a) is given, (b) should spring up before the imagination, and *vice versa*.

Having agreed upon it, that the principal symptom of Amaurosis is immovableness of the iris, we wish to connect these *two* notions so strongly that whenever, &c.

Having agreed upon it that the principal medical property of opium is narcotic, we wish to connect these *two* notions so strongly that whenever, &c.

Having agreed upon it that *lux* means light, we wish to connect these *two* notions so strongly, &c.

Having agreed upon it that the strategical and tactical movement of the Prussian army at the battle of Waterloo was a movement on the right flank of Napoleon, we wish to connect these *two* notions so strongly, &c.

And so on through the whole chain of human studies, be they those of languages, sciences, or arts. Each individual study consists of a greater or less number of such *couples to be made indissolubly to stick together*.

The process, then, of committing to memory and recollecting, consists of the following three stages :—

1. *It must be agreed upon which two notions should always follow one another.*
2. The two notions of the thus agreed upon couple must be stuck together, and impressed upon the brain; and,
3. One of these two notions must be given, in order that the other may spring up before the imagination.

These three conditions are all and each indispensable for the process of memory.

PHRENOTYPIC CLASSIFICATION OF HUMAN
STUDIES.

We have just seen that in the business of committing to memory any piece of knowledge, we have always to connect together *two* notions ; and we have also seen above that notions are either *familiar* or *not familiar* ; hence it follows that in our studies we shall have to connect together either—

1. Two notions, each of which is a familiar one.
2. Two notions, one of which is a familiar one, and the other a not-familiar one ; or,
3. Two notions, each of which is a not-familiar one.

In symbols I will represent these three kinds of studies, which I will call the three phrenotypic problems, thus—

1. To connect a  with a 

2. To connect a  with a 

3. To connect a  with a 

There must exist *three* such classes of human studies, and there can exist *no more*.

This is a *rather new* classification of human studies: it is not with respect to something inherent in these studies themselves; it is according to the bearing these studies have upon the individual student. I will illustrate this by the following example:—

Suppose a London publisher, who being for many years a constant reader of newspapers and periodicals, cannot fail of becoming familiarly acquainted with the NAMES of the leading members of the House of Commons; he knows about the biography, literary productions, and political principles of Dr. Bowring, Sir Robert Peel, Lord Melbourne, &c., as much as any man living. Suppose also, that having on many occasions seen these personages themselves, as at chapel, the opera, museum, &c., he has their physiognomies, their gait, &c. perfectly impressed upon his brain. Suppose, moreover, that they are his occasional customers, although he never knew *who* these customers were; he never in the least suspected that these customers are the very individuals whose speeches he was just anatomizing, and whose political conduct he was just praising or deprecating. He knows well their *names*; he knows a host of circumstances connected with these names; he knows well the personages themselves; he saw

them, he conversed with them, he dealt with them ; still he had never an opportunity of learning that such names had any thing to do with such personages. A visit to the gallery of the House of Commons during the debate on the (say) libel question, is the occasion on which those names and their owners are for the first time to come into contact with each other in his brain. The Speaker, one of his customers, takes the chair, and immediately our publisher bursts into an "Is it possible!" He can scarcely believe it, that the gentleman whom he has seen so often before, was the very Speaker of the House of Commons, whose name and person he knew separately for so many years. His surprise increases by seeing Dr. Bowring, Sir Robert Peel, Lord Melbourne, &c. addressing the House. He knew them all—he had seen all three in his own shop—he had conversed with them—nay, had made serious allusions to their names when present. He is now determined to commit to memory the names of all these personages ; in other words, he is determined to stick together the *names* with their respective *personages*.

Next to him sat a colonial publisher, just arrived, say, from Quebec. This colonial gentleman is perfectly familiar with the names of the above M.P.'s ; but he indeed never saw any of them. He also attempts to commit to memory the names of various speakers on the occasion.

In another corner of the same House sat a Chinese, just arrived in London, who also wishes to commit to memory the names, shapes, gait, dresses, &c. of the Barbarians that spoke and legislated in his presence.

The Londoner, the Colonial gentleman, and the Chinese, have evidently the same piece of knowledge to heave into their brain; but for the Londoner it is the 1st phrenotypic problem; he has to stick together a name which is to him a *familiar* notion, with a personage which is for him a *familiar* notion also—thus, a  with a 

For the colonial gentleman it is the 2nd phrenotypic problem; he has to stick together a name which is for him a *familiar* notion, with a personage which is for him a *not-familiar* notion:—
thus . . . a  with a 

For the Chinese it is the 3rd phrenotypic problem; he has to stick together a name which is for him a *not-familiar* notion, with a personage which is for him a *not-familiar* notion, thus:—

a  with a 

A child attempts to commit to memory the alphabet; it has continually to connect together two notions, viz. a visible sign, a letter which it never saw before, with an isolated sound of which

it knows very little; the child has to connect together a not-familiar notion with a not-familiar notion; it is in the 3d phrenotypic problem.

The committing to memory the value of the ten arabic numerical figures belongs, for the child, to the same problem.

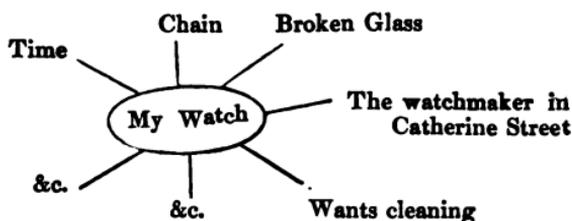
In Geography, to connect together the *name* of a country, suppose Ukraine with the outline of that country; the student never heard such a word; never saw such an irregular figure; here the student is again in the 3d problem.

These illustrations will suffice for the present purpose, of merely understanding what is meant by 1st, 2nd, and 3rd phrenotypic problems.

GIVEN NOTIONS—PHANTOMS OR SPRUNG-UP
NOTIONS.—ASSOCIATING NOTIONS.

When *one* familiar notion is put before the mind, it makes immediately rise before the same mind a greater or less number of properties and circumstances particularly belonging to and connected with that notion. *The first notion I will call THE GIVEN NOTION. The notions that rise before the imagination subsequently to the brain having been acted upon by the given notion, I will call the SPRUNG-UP NOTIONS, OR THE PHANTOMS, owing their existence to the action of that given notion.*

The number of these phantoms is the greater, the greater the degree of familiarity of the *given* notion; *this is the very essence of familiarity of a notion;— e.g.* I put before my mind the notion, my watch— this given highly familiar notion will immediately make rise before my imagination a host of phantoms, thus :—



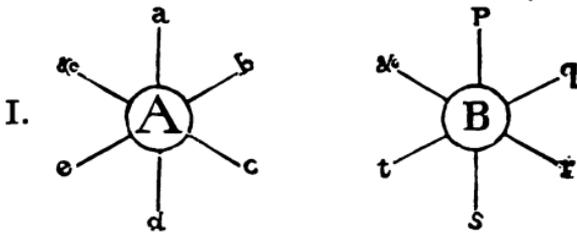
The number of these phantoms will amount, perhaps, to some thousands—the degree of familiarity being very great.

Now I put before my mind the notion, Mr. Cassini, the name of the gentleman from whom I yesterday received a letter : he wishes to know when a new class will commence. I know nothing more about him ; his name will make rise before my imagination but a couple of phantoms, the degree of familiarity being very small.

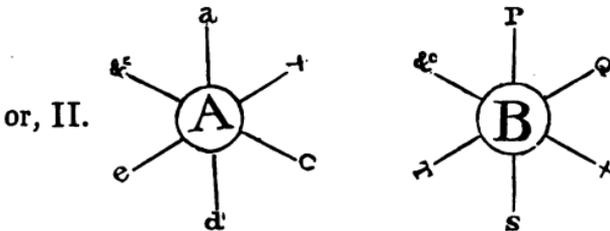
Before I proceed, I will formulize here my hypothesis enunciated above under the head of *noticing*, thus :—Just as in the physical world we notice but *some* of the notions that stand before our senses, so in the mental world we notice but *SOME* of the phantoms that stand before the imagination.

The being or not being noticed, will depend upon the peculiar state of mind of the individual, which state of mind is the result of all the circumstances composing his past life.

When two familiar notions are put before the mind, one of the two following mental sceneries will make its appearance :



(By A and B I designate the two given familiar notions ; by a, b, c, d, e, &c., I designate the phantoms owing their birth to A ; by p, q, r, s, t, &c., I designate the phantoms owing their birth to B.)



(The same designation of letters ; the cross \times designating a phantom appearing among those owing their birth to A, and also among those owing their birth to B.)

The phantoms, or what is the same thing, the sprung-up notions, a, b, c, d, &c., are properties and circumstances *peculiar to and connected with A only*.

The phantoms, or what is the same thing, the sprung-up notions, p, q, r, s, t, &c., are properties and circumstances *peculiar to and connected with B only*.

The phantom, or what is the same thing, the sprung-up notion, cross \times , is a property belonging to, or a circumstance connected with, both A and B.

Each of the phantoms, a, b, c, d, e, &c., p, q, r, s, t, &c., appears in consequence of having been heaved out from the abyss of nothingness, and erected before the imagination by *one only* of the two given notions, by A or by B. The phantom cross \times , appears in consequence of having been heaved out from the abyss of nothingness, and erected before the imagination by the combined power of *both the two given notions*, by A and by B.

Any phantom, which like the phantom cross \times owes its birth to the *two* given notions, I will call a *common phantom*, or a *common sprung-up notion*. Let me illustrate this by an example:—

I put before the mind of one of my youngest pupils the two familiar notions to him, (A) reptile and (B) column. *Reptile* makes jump up before his mind a host of reptiles he has seen pictured in his little book. *Column* makes jump up before his mind a host of columns he has seen in London; there will rise no common phantom, *i.e.*

any of the risen reptiles or columns will owe their birth to *one* only of the two given notions. Now I put the same notion before *my* mind, and I find that among the phantoms brought forward by *reptile*, (viz. among a host of lizards, crocodiles, plagiarists, pirates, calumniators, &c.) I notice the sandy plains round Alexandria in Egypt, where I have seen more reptiles than any where else; I notice also among a host of phantoms owing their birth to *column*, (viz., among the Bourse of Paris, Regent's Quadrant, Drury Lane Theatre, &c.) I notice the same sandy plain round Alexandria in Egypt, where I have seen the most ancient of all columns, Pompey's Pillar.

The mental scenery of my *pupil* is of the kind I; *there is no* common phantom.

My mental scenery is of the kind II; *there is* a common phantom.

Such common phantoms are peculiarly privileged.

Out of the two hosts of phantoms *a, b, c, d, &c.*, *p, q, r, s, &c.*, but few will be noticed; but what is certain is, that *the common phantom cross x will be noticed in preference to the rest*. This I account for thus:—each of the phantoms *a, b, c, d, &c.*, is launched upon the imagination by *one* only of the given notions, viz. by A *or* by B; while the common phantom cross *x* is launched upon the imagination by the combined power of A *and* B. In the above-mentioned example, the sandy plain round

Alexandria, in Egypt, has the privilege of being noticed in preference to all the crocodiles, lizards, plagiaries, pirates, calumniators, &c., Bourse of Paris, Regent's Quadrant, Drury Lane Theatre, &c., on account of each of them having been launched upon *my* imagination by the power of *one* only of the two given notions—viz., by reptile or by column; while the sandy plain round Alexandria in Egypt has been launched upon my imagination by the combined power of the *two* given notions, reptile and column.

(Teachers will multiply such illustrations.)

**THE PROBABILITY OF A COMMON PHANTOM
SPRINGING UP IS DEPENDENT UPON THE
DEGREE OF FAMILIARITY OF EACH OF THE
TWO GIVEN NOTIONS.**

As an illustration, let me adduce the following simile.—Suppose I had two boxes, one before my right and the other before my left hand: in each of these boxes there is one million of small cards, with a series of numbers from 1 to 1,000,000 written upon them. Now having well shuffled the cards in each box, I will take with each of my hands from its respective box as many cards as that hand can contain,—say a thousand. Two cases may take place, viz.—

- (1) All the numbers contained in the right hand are entirely different from those in the left, *i.e.* there is not a single number common to both hands;—or
- (2) There will be one or more numbers common to both hands.

It is impossible to foretell which of the two cases will take place.

Next, I call in a little boy of seven years, and order him to try *his* luck. The boy is in the same predicament as myself; he *may* and he *may not* have a common number; but it is clear that he will have a great deal less chance of having a common number in both hands; and this will be merely on account of his hands being smaller—he can grasp with them less numbers than myself. My probability of having a common number will be just as much greater than the probability of the boy's having a common number, as my hands are larger than those of the boy.

My own probability will increase with the increasing expansion of my fingers: the more I stretch them, the more numbers I shall grasp with each hand, and in this degree will increase the degree of probability of my having a common number in both hands. Now, let me put before my senses the two notions—watch, pencil: each of them is highly familiar to me; they are  

i. e. each of them causes to jump up before my imagination a host of phantoms. One of the above two mental sceneries I., II., will take place; *i. e.* there will be, or there will not be, a common phantom: it is impossible to foretel which of these two cases will take place. •

Next, I put the same two notions, watch, pencil, before the senses of a little, say, pin-manufactory boy, of seven years. The boy is in the same predicament as myself; there *will*, or there *will not*, be a common phantom rising before *his* imagination; but it is clear that he will have a great many chances less than myself, on account of each of the two notions, watch, pencil, being a great deal less familiar to him than to myself; he knows, comparatively, very little about the properties and circumstances peculiarly belonging to or connected with watch, pencil,—they are for him  

while for me they are  

The same two notions, watch, pencil, put before the senses of a boy who had passed his last seven years alternately in rambles in Covent-garden Market, in St. Catherine's Docks, police stations, and Newgate—to him, watch and pencil will be as familiar as to myself; *i. e.* the *number* of notions jumping up will be as great as mine. The *kind* of these jumped-up notions will be different from

those in my case, still their *number* will be as infinitely greater than that in the case of the manufactory boy, who spent all his little life in sharpening pins, and saw watch and pencil perhaps no more than a dozen times:—the consequence is, that the rambler and myself will have just as *great* a probability of having a common phantom, as the familiarity of watch and pencil of the rambler and myself is *greater* than that of the pin-manufactory boy.

(Teachers will multiply such illustrations.)

This common phantom, or what is the same thing, this phantom which is a property or a circumstance belonging to or connected with each of the two given notions, will, we shall soon see, serve a useful and all-important purpose,—viz. that of connecting together the two given notions rapidly, and so strongly that whenever one of these is given, the other will rise before the imagination: hence, I will designate such common phantoms also by the expressions—*agglutinating notions*—*associating notions*.

HOW TO COMMIT TO MEMORY KNOWLEDGE BELONGING TO THE FIRST PHRENOTYPIC PROBLEM.

Suppose I had to commit to memory the following series of couples; *i. e.* I want to connect together the two notions belonging to each couple so strongly, that when one of them be given, the other might immediately spring up before the imagination.

paper	heaven
tallow	knowledge
beauty	mischief
fire	life
chalk	mathematics.

&c., &c.

I put these couples before the mind of one of my pupils, and the following took place:—As soon as paper and heaven were put, a *globe* jumped up before his imagination, which he related to me in the following words—

“*A PAPER GLOBE representing HEAVEN.*”

After tallow and knowledge, *enlightening* rose before his imagination, which he related to me in the following words—

“*TALLOW burning enlightens, and so does KNOWLEDGE.*”

C

After beauty—mischief, a certain lady rose before his imagination, which he related thus—

“ *The BEAUTY of that lady was my MISCHIEF.*”

After fire—life, a *fireplace* rose before his imagination, which he related thus—

“ *FIRE is upon a certain fireplace ; round it is LIFE.*”

After chalk—mathematics, a *slate* rose before his imagination, which he related thus—

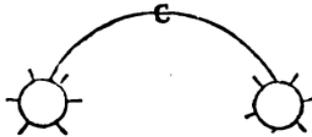
“ *CHALK traces upon that slate the symbols of MATHEMATICS,*”

and so on to the number of 30. In 29 of them he had a *common* phantom springing up, or in other words he had a phantom owing its birth to the combined power of both the given notions ; and this common phantom was all-sufficient to make out of all the three notions *one* old notion, of which one extremity being given, the other rises immediately. In one case he failed, viz. in that of India-rubber—small pox. After them, *death* from small-pox rose before his imagination, but death had for him nothing to do with India-rubber, and therefore did not serve the purpose of agglutinating the two given notions together.

What my pupil did, is what philosophers call *the association of ideas* ; they say that in order to

connect such notions, *you must form some anecdote or story that connects them.* What I recommend is, not to be active in this transaction—not to form purposely a story, but merely to wait patiently until a something rises before the imagination after the two given notions have been put before the mind. That something will either *be or not be a common sprung-up notion* : in the first case, and in the first case only, it will serve our purpose of connecting together the two given notions : but if for the individual student there happens not to exist any common notion, and you form for him a story, he will have to commit to memory the two notions and the new story into the bargain.

Symbolically, I will represent the method of managing the 1st Phrenotypic Problem, thus—



the letter C designating the common sprung-up notion.

HOW TO COMMIT TO MEMORY KNOWLEDGE
BELONGING TO THE SECOND PHRENOTYPIC
PROBLEM.

Returning back to our simile of the two boxes, I will now suppose that I take with my right hand one thousand cards, but with the left I take only a few. It is clear that there will be very little chance of having a card common to both hands; and at any rate the probability is here far less than in the case of my grasping with each hand one thousand cards. When I put before my mind a series of couples forming the 2nd phrenotypic problem, the probability of having a *common* phantom spring up is far less than in the first problem, and therefore I will proceed differently.

Suppose I had to commit to memory the following arbitrary vocabulary.

scopo	bread
stireen	water
lamono	sofa,
&c.	&c.

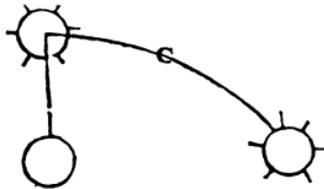
I will first put before my mind *scopo* alone: this makes rise before my mind the notion *scope*: this notion *scope* I will put simultaneously before my mind with *bread*, and immediately *labour* springs up thus—"The SCOPE of *labour* is BREAD."

I put *stireen* alone: this excites the notion of stir in: I put stir in and water simultaneously,

and up jumps the pump that is opposite my window, thus—“STIR IN *the pump the WATER.*”

Lamono excites the notion *lemon*: *lemon* put simultaneously with *sofa*, brings up a stain of ink: thus—“LEMON *has take out the inkstain from my SOFA.*”

Symbolically I will represent this process thus—



In the very outset of this case I knew that there was no great probability of having a common or associating notion between the two given notions, on account of one of them being very little familiar. I therefore crept out first from that not-familiar notion into a familiar one; and this thus-obtained *familiar* notion I put simultaneously with the *given FAMILIAR* notion, and I knew beforehand that I should thus have a greater probability of obtaining an associating notion: the result fully answered my expectation.

In this manœuvre consists the whole secret of those who are remarkable for their polyglottic acquirements; but of this more in particular when we come to the application of our principles to the study of Languages.

HOW TO COMMIT TO MEMORY KNOWLEDGE
BELONGING TO THE THIRD PHRENOTYPIC
PROBLEM.

Returning back to our simile of the two boxes, I will now suppose that I take with each hand but a few cards. Here the probability of having a common card in both hands is very small indeed; in fact it would be a miracle if, having taken but a few cards in each hand out of one million, I should happen to pick up with my right hand a card similar to that picked up with my left.

In order to make myself understood, and better to impress upon my pupils the method of managing this most difficult problem, which, by the bye, embraces the greatest portion of human studies, I find it effective and useful to relate circumstantially the following anecdote:—

In my early infancy, my father, a physician and an extraordinary linguist, initiated me in the mysteries of several mnemonic contrivances; in the study of languages I invariably employed the association of ideas. I succeeded so far, that when at the age of not full thirteen, my father sent me to study medicine at the university of Vilna, in Poland. Relying upon my extraordinary memory, as it was called, I attended several courses of lectures besides those usually prescribed for students

in medicine. I succeeded perfectly everywhere during several months until spring came, and with it the study of botany; here, far from outstripping my fellow-students, I actually remained behind even those whom I was accustomed to look upon as poor, flat, mediocrities. The matter stood thus:— Besides attending the lectures on botany, the students are admitted twice a week to the botanic garden: there they find a metallic label with a number upon it: that number refers them to a catalogue where they find the respective names: these names they write out into a copy-book thus,—

No. 1778 . . . *Valeriana officinalis.*

No. 9789 . . . *Nepeta Cataria.*

&c. &c.

And having thus found out the names of a dozen of plants, they endeavour to commit them to memory in the best manner they can. Any one finds it tiresome, awkward, and annoying to look to the huge numbers upon the label, then to the catalogue, then to the spelling of the names, then to the copy-book, and after all to be allowed to remain there only about an hour twice a week, when the taking away with you a leaf may exclude you for ever from entering the garden at all. But I was peculiarly vexed and broken-hearted: I came to the garden tired out by other studies; I had a full

dozen of copy-books under my arm, a very old catalogue with many loose leaves; to which if you add an umbrella in my left, a pen in my right, an ink-bottle dangling from my waistcoat-button, and above all, a heart of a spoiled child in my breast, you will have a tolerable idea of my embarrassment. Week after week elapsed before I mastered a few plants: when I looked at home into my copy-book, the scribbled names did *not* make rise the respective plants before my imagination; when I came to the garden, the plants did not make rise their respective names. My fellow-students made, in the mean time, great progress in this, for me, so unmanageable study:—for a good reason—they went every morning at five into the fields, gathered plants, determined their names, put them between blotting-paper, &c.—in a word, they gave to botany about six hours per day. I could not possibly afford such an expenditure of time; and besides, I could not bear the idea of studying simply as others did. The advantages I derived from mnemonic contrivances in other departments, induced me to hunt after some scheme in botany also.

My landlady and her two daughters happened to be very inquisitive about the students passing by their parlour window, which was close to the gates of the university; they scarcely ever allowed me to sit down before I satisfied their inquiries respecting the names, respectability, pursuits, &c., of at

least half-a-dozen pupils. I was never very affable, but on the days of my mischievous botanic garden they could hardly get from me a single syllable; I could not, however, refuse when they once pressed their dear request thus:—"Do tell us, pray, the name of that fish, do!" pointing most pathetically to a pupil just hurrying by close to the window. When I answered, "His name is Fisher" (I translate from the Polish, Ryba Rybski) they burst into a almost spasmodic chatter, "We guessed his name! oh! he could not have another name! Look only," continued they, "how his cocked hat sits upon his head, pointing from behind forward, exactly in the same direction with his nose! look to the number of papers and copy-books fluttering about on each side between his ribs and elbows! look how he walks—he is actually swimming! oh! the name Fisher becomes him exceedingly well." I could not but agree with the justice of their remarks; I complimented them; I became more attentive to their conversation when at table, which happened to run thus,— "Mother, what is become of the Long Cloak? I saw him yesterday with the Old Boot: do they reside together?" "O no; the Long Cloak looks often through yon garret window, where the Big Nose lived some time ago," &c. &c. They understood perfectly one another by these nicknames Long Cloak, Old Boot, Big Nose, &c.

This conversation suggested to me at once the means of dispensing with my old anarchical catalogue when in the garden, and in fact the whole plan of proceeding in the study of botany stood before my view ; I felt confident I should soon leave all the young jealous, triumphant, and sneering botanic geniuses at a respectable distance behind. It happening to be the time of admission, I proceeded immediately to that corner of the garden where the medical plants were, leaving the catalogue at home. I began christening these plants just in the same manner as my landlady and her ingenious daughters christened the students of the university,—viz. I gave them those names which spontaneously were suggested to me by the sight, touch, &c. of them. The first plant suggested imperatively the name of Roof covered with snow, from the smallness, whiteness, and peculiar disposition of its flowers, and so I wrote down in my copy-book No. 978, Roof covered with snow. Next I found No. 735, Red, big-headed, cocknosed plant ; and so on to about twenty plants in a few minutes ; then I tried whether I had committed to memory these plants—Yes. In looking to the plants, their nicknames immediately jumped up before my imagination ; in looking to these nicknames in my copy-book, the plants themselves jumped up. My joy was extreme : in a quarter of an hour I left the garden, convinced that I had

carried away twenty plants which I could cherish, repeat, meditate upon at my own leisure. The only thing that remained to be done was, to know how people, how learned people, call them. This being exactly the same business as that of committing to memory twenty foreign words—a business in which I was already clever—I settled it in a few a few minutes, thus: I put comfortably my catalogue upon the table, looked for No. 978, and found Achilæa Millefolium; this made rise before my imagination an eagle with a thousand feathers (on account of *Aquila*, in Latin eagle, *mille* thousand, and *folium*, leaf.)

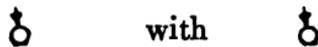
I put simultaneously before my mind, roof covered with snow, and eagle; and high mountain rose immediately before my imagination thus—*ROOFS covered with snow are to be found in high mountains, and so are EAGLES.* In the same manner I treated all the 20, and afterwards several hundreds of medical plants in a few visits to the garden. The examination came—the effect produced by my answers was somewhat similar to the effects produced by my pupils upon those who witness with their own senses the generally declared impossible feats of memory performed by them with the greatest ease and cheerfulness.

The professor gave me a plant: this naturally brought before my imagination the nickname: this nickname led me immediately through the com-

mon phantom to the familiar notion which I substituted for the 2d not-familiar notion; this substitute dragged invariably forth the little-familiar and often barbarous required name itself.

Symbolically I will represent this process thus—

I have to connect together a plant which I never saw before, with a name which I never heard before,



I know there is very little chance of my obtaining an associating notion—I therefore take separately the plant and creep out from it into a

familiar notion, thus



I do the same

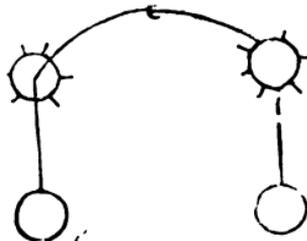
thing with the other not-familiar notion, the name,

thus—

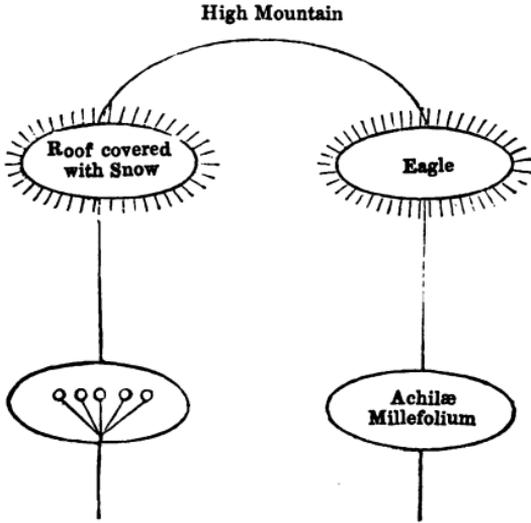


Then I put the two sprung-up

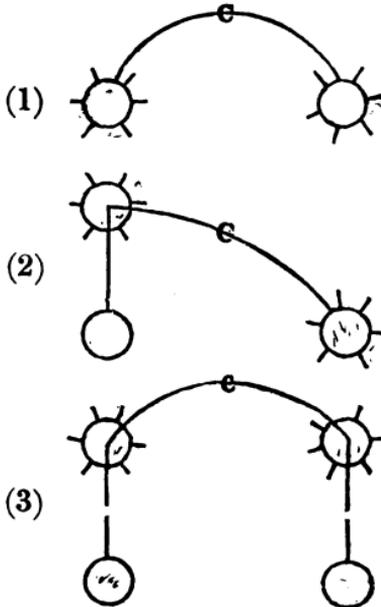
familiar notions simultaneously before my mind, and I am pretty certain of obtaining a common or associating notion, thus—



which, in the example of *Millefolium*, will appear thus—



And now I will represent the processes to be made use of in the three problems, in one view.



From all this I come to the following Corollary.

THE RAPIDITY AND STRENGTH WITH WHICH TWO GIVEN NOTIONS STICK TOGETHER, IS IN THE RATIO OF THEIR JOINT FAMILIARITY.

This is what I declare **THE FIRST OF THE TWO PRINCIPLES OF THE ART OF MEMORY DISCOVERED BY MYSELF**, and christened with the name of

THE PRINCIPLE OF FAMILIARITY.

The nature, the truth, and the importance of it is already acknowledged by thousands—these thousands, in company with the press, will soon plant it in the brains of all.



At the head of my introductory Lecture, published a year ago, I inscribed these presumptuous words—

“ By following this method, men shall henceforth be enabled to acquire more knowledge in days, than they could hitherto do in weeks ; and what was the task of laborious long years, they will achieve in as many easy and cheerful months.”

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