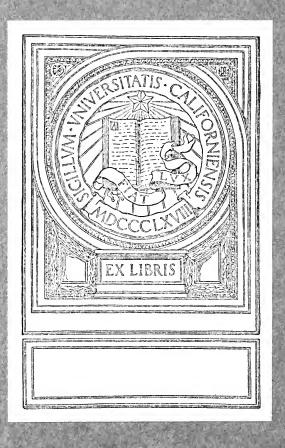
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ADVANTAGES

OF

Association of Ideas in Teaching.

ADDRESSED TO THE TEACHERS AND SCHOOL OFFICERS

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CALTFORNIA.

BY ANDREW J. MOULDER,
SUPERINTENDENT OF PUBLIC INSTRUCTION.

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In compliance with the following request, the accompanying Lecture is published. It is hoped that it may furnish some useful hints to the Teachers and School-Officers of the State.

ANDREW J. MOULDER,
Supt. Public Instruction.

TEACHERS' INSTITUTE, San Francisco, Dec. 6th, 1862.

Hon. A. J. MOULDER.

Dear Sir:—I have the pleasure to transmit to you the following resolution, which was unanimously adopted by the Teachers' Institute, at its last meeting:

Resolved, That the thanks of the Institute be presented to the Hon. A. J. Moulder for his scholarly and practical Address; and that he be respectfully requested to furnish a copy of the same for publication.

Yours respectfully,

D. H. WHITTEMORE, Secretary Teachers' Institute.



ADVANTAGES

OF

AN ASSOCIATION OF IDEAS IN TEACHING.

A LECTURE,

Delivered before the Teachers' Institute of San Francisco, Dec. 5th, 1862.

BY ANDREW J. MOULDER,

SUPERINTENDENT OF PUBLIC INSTRUCTION.

LADIES AND GENTLEMEN OF THE INSTITUTE:

In the remarks I propose to make this evening, I do not intend to bore you with platitudes about the importance of education, or with vague generalities about teaching thoroughly, enforcing good order, awakening thought, and the like. I have myself been dosed too severely with such stuff to attempt to inflict it upon others.

I propose to make a running commentary upon some matters connected with your profession—to rejuvenate some old ideas—present them in as pleasing a dress as possible—glance at some of the late improvements in the art of teaching—suggest some useful expedients, and assist in burying some moribund theories and exploded notions.

At this late day, one cannot expect much of originality in the treatment of a subject embraced between such narrow limits of variation as the true principles of education. You might as well expect originality in a translation of the Scriptures. But,

State, I can cut a trail by which you shall reach your end along the diameter, instead of around the circumference, I have made a labor-saving improvement.

Nobody can invent the sewing-machine over again, but one may get out a patent for a new stitch, or a little hemming attachment.

All knowledge is attained either through the medium of the senses, or by inductive reasoning. The sense of touch informs us that ice is cold, and fire hot. No amount of reasoning could convince us of these facts. But none of our senses could satisfy us that the three angles of a triangle are together equal to two right angles.

There are two modes of reasoning, so called, the distinction between which is clearly marked, and should so be kept. The one is by means of an association of ideas—the other, by what I shall call an association of words. The latter is really not reasoning at all, although the process by which results are reached, is often called so. If one should teach a parrot to repeat, "two and and two make five," the words "two and two" would ever after suggest to the parrot the conclusion "five." This is a result reached by an association of words. It involves no exercise of intelligence, no assent of the mind. with much of the knowledge imparted to children. The child used to be taught, for instance, that "a verb is a word which signifies to be, to do, or to suffer"-" mood or mode is the particular form or manner in which the action, passion, or being of the verb is represented." The child may glibly repeat these definitions. This it effects by the association of words. There is no association of ideas, and without such association, the acquirements, mis-called knowledge, of the youthful prodigy gifted with a retentive memory, are all a sham and a delusion.

Let me illustrate the distinction I am attempting to make, by the curious and fantastic mythology of the Greeks and Romans, the joint production of their priests and poets. They were taught in their infancy to believe, or rather to repeat, that Jupiter was the King of the Gods—that Neptune was Sovereign of the Seas, and Pluto of the Infernal Regions. They acted upon this belief. They erected costly temples and altars—maintained large retinues of priests—offered perpetual sacrifices. But the belief in the existence and attributes of Jupiter, of Neptune, and of Pluto, was neither based upon the evidence of

the senses, nor was it the result of any compelling sequence of reasons, such as that by which we are forced to the conviction that the square of the hypothenuse of a right-angled triangle is equal to the sum of the squares on the other two sides. former case, Jupiter is declared to be the King of the Gods on the same principle by which the parrot declares "two and two make five "-that is, by association of words. The word "Jupiter" suggests the words "King of the Gods." In the latter case, the mind assents-in fact it cannot, if it would, avoid the conclusion, that the square of the hypothenuse is equal to the sum of the squares on the other two sides, and this conclusion it reaches by the association of ideas-not of words. Nobody now believes in the Deities of the Pantheon, but Christian, Hebrew, Mahometan, Brahmin, Buddhist, and Parsee, all assent to the mathematical conclusion, established by the Greek geometer, 400 years before Christ. Fortunately the old system of teaching, which required the child to commit a certain amount of matter to memory, and to repeat it, is rapidly falling into disrepute. A child so taught is very like the telegraph instrument that repeats words all day long, but never gets an idea.

I have still a horrible recollection of the manner in which I was taught Grammar. Old Lindley Murray was my text book. I was required to get by rote two pages per day of Rules and Notes, beginning at the top of the left hand page, although it might be Note 8, under Rule 20, and ending at the bottom of the right hand page-though, likely as not, it ended with Note 5 of Rule 21. With feelings of unutterable aversion, I would still diligently con my task-task, in the roughest acceptation of the term—and at the time appointed, would move slowly and lingeringly up to the master to recite. To the last moment, I would hang on to the book, and many a time, after having handed it to my Teacher, have I asked him to let me have it back again a moment, before he commenced, that I might have a last look at the words of some frightful sentence upon which I was afraid I should break down. The recitation commenced, I would rush rapidly on, for fear the words would escape me if I lingered. As the impression produced by light upon the retina remains for a brief period after the illuminating body is withdrawn, so remains—and for but a little while longer—the impression produced by the words of a task whose meaning is unintelligible to the pupil. It is important, therefore, that the boy should be in a hurry. He is very like the man who is

attempting to cross a shaking bog. He must skip rapidly from tuft to tuft. If he hesitates, he is lost. Well, I would push briskly through my recitation, scarcely halting to take breath, until I reached a point where memory failed me. Floundering here a moment, the indulgent master would sometimes give me a clue to help me on. He would repeat perhaps the next two or three words, such as "and the noun," or "is governed"—and with this assistance, I would dart on, like the pointer that has got on the scent anew.

Sometimes when at fault in the middle of one of the most incomprehensible of the Notes, I would try back, just as a boy does who balks as he reaches the edge of a ditch which he is attempting to clear by a run and jump. The second time, perhaps, I would get on so much impetus that I would run down the obstacle, and come out at the end with flying colors, although, like an overtasked racer, a little blown.

My Grammar master, I remember, was a great stickler for the text of old Murray. If Murray used the word "signifying"—"signifying" it must be. If, instead, I happened to employ the word "meaning," or if in place of the expression "nouns signifying the same thing," I substituted the phrase "substantives expressing the same idea," I was stopped at once with the remark—"No, that's not it; that wont do."

Murray's text was the only genuine coin—all imitations, however good, were but counterfeits that could not pass. I have sketched the miseries a boy endured in the study of Grammar in early days, that I might bring out in bold relief the glaring faults and errors of the system of training formerly in vogue. Even yet, there are Teachers who cling to this abominable system, while others, who have kept pace with the age, and who know how a child should be taught, rest content with parrot recitations, because it saves the time and trouble it would take to test the pupil's comprehension and to illustrate the subject of the lesson.

In a little book, called "Familiar Dialogues," written by Mr. Fowle, for the amusement of his pupils, occurs a dialogue which takes off so happily this folly of expecting children to acquire knowledge by committing lessons to memory, and also the kindred folly of crowding a little of everything into the young mind, that I may be pardoned if I here repeat it:

[&]quot;A mother in search of a school for her child, accosted a young teacher as follows:

Mother .- Are you the mistress of this school, miss?

Teacher .- I am, madam.

M.—Your school has been highly recommended to me, and I have concluded to place my only daughter under your care, if we can agree upon the subject of her studies Pray what do you teach?

T.—What is usually taught in preparatory schools, madam. How old is your little girl?

M .- She is only five, but then she is a child of remar-kable capacity.

T.—I should not think she studied many branches at present, madam, whatever she may do hereafter.

M.—Indeed she is not so backward as you imagine. She has studied astronomy, botany, and geometry, and her teacher was preparing to put her into Latin, when ill health obliged her to relinquish her school.

T .- Have you ever examined her in these sciences, madam?

M.—O yes, indeed. Fraxinella, my dear, tell the lady something of geometry and astronomy. What is astronomy, my dear? Ask her a question, miss, any question you please.

T.-What planet do we inhabit, my dear?

C.—Hey?

T.-What do you live on, my dear?

C .- On meat, ma'am; I did not know what you meant before.

M.—No, my dear, the lady wishes to know what you stand on now—on what do you stand?

C .- On my feet, mother; did she think I stood on my head?

M.—Fraxinella, dear, you have forgotten your astronomy the three days you have staid at home. But do now say a line or two of your last lesson to the lady; now do, dear, that's a darling.

C.—The equinoctial line is the plane of the equator extended in a straight line until it surrounds the calyx or flower-cup, for the two sides of an isuckle triangle are always equal to the hippopotamus.

M.—There, miss; I told you she had it in her, only it requires a peculiar tact to draw it out. I knew she would astonish you.

T.—She does, indeed, madam. You speak of the plane of the equator, my dear; will you be good enough to tell me the meaning of the word plane?

C .- Ugly, ma'am; I thought everyboby knew that.

T .- How many are three times three, my dear?

C.-Three times three?

T .- Yes; how many are they?

C.-I don't know. Mrs. Flare never told me that; she said everybody knows how to count!

T.—She taught you to read and spell, I suppose.

M.—No, I positively forbade that. I wished to have her mind properly developed, without having her intellect frittered away upon elements. But I see your school will not do for my daughter. I was afraid you only taught the lower branches. Come, Fraxy, dear, let us call on Miss Flourish; perhaps she is competent to estimate your acquirements, and finish your education."

It is now accepted almost as an axiom by the profession, that any thing which appeals to the senses can best be taught through the senses, and by a little ingenuity and preparation on the part of the Teacher, many things may be thus taught, which, at first sight, appear of an abstract nature, and not reducible to the test of the senses.

The alphabet, for instance, is taught in some of the Primary Schools of Europe by means of large block letters.

The child is made to look upon them as toys, and soon learns to pick out any particular letter from the blocks, ranged upon the floor, without regard to sequence.

But in the absence of blocks, the same result may be obtained by assisting the child with a resemblance of the letter to something with which he is familiar. I cannot better illustrate my idea than by reading an extract from a quaint old work entitled "The Youth of Shakspeare."

"Mother," said young Shakspeare, "I pray you tell me something of the fairies of whom nurse Cicely discourseth to me so oft. How may little children be possessed of such goodness as may make them be well regarded of these same fairies, mother?" "They must be sure to learn their letters betimes," replied she, "that they may be able to know the proper knowledge writ in books, which, if they know not when they grow up, neither fairy nor any other shall esteem them to be of any goodness whatsoever." "I warrant you I will learn my letters as speedily as I can," replied the boy, eagerly. "Nay, I beseech you, mother, teach them to me now, for I am exceeding desirous of being thought of some goodness. But what good are these same letters of, mother?" inquired he, as he took his horn book from the shelf. "This much," replied Dame Shakspeare; "by knowing of them thoroughly one by one, you shall soon come to be able to put them together for the forming of words; and when you are sufficiently apt at that, you shall thereby come to be learned enough to read all such words as are in any sentence, which you shall find to be only made up of such; and when the reading of such sentences shall be familiar to you, doubt not your ability to master whatsoever proper book falleth into your hand, for all books are composed only of letters, as I shall teach thee straightway." The lesson had not proceeded far, when the draper's wife came in. "And what hast got here, prithee, that thou art so earnest about?" asked Mrs. Dowlass. "A horn book, as I live! And dost really know thy letters at so early an age?" "Nay, I doubt I can tell you them all," replied Master William, ingenuously, "but, methinks I know a good many of them." Then pointing at the several characters, as he named them, he continued: "First, here is A, that ever standeth astraddle. Next him is B, who is all head and body and no legs. Then cometh C, who bulgeth out behind like a very hunchback. After him cometh D, who doeth the clean contrary, for his bigness is all before. Next,"-here he hesitated for some few seconds, the others present regarding him with exceeding attentiveness and pleasure-" next here is-alack, dear mother, do tell me that fellow's name again, will you, an' it will go hard with him if he escape me."

Here, you observe, the young scholar breaks down as soon as a resemblance fails to assist him with an association of ideas.

Think you, that a child taught the alphabet in this, or any similar way, would ever be tired of his lesson?

In teaching Geography, all admit that the approach to the child's comprehension is easiest through the sense of sight. A globe is therefore indispensable. If the District is too poor to

buy one, the Teacher should get up a substitute. Run a skewer through a pumpkin, if nothing better can be done. The sense of sight embraces resemblances to familiar objects, and of this, valuable use may be made in imparting a knowledge of many details in Geography.

If you would impress upon the mind of a child the shape or outline of Italy, for instance, call his attention to its close resemblance to the shape of a boot. You may rely upon it he will always have a clear idea of that country.

Go a little farther, and, using this same resemblance, you may impress upon him, with equal force, some details of the geography of Italy. Thus, show him that the Alps form its northern border, and correspond to the trimming or border around the top of the boot. Show him, by means of an outline map, that the toe of the boot approaches very closely to Sicily, from which it is only separated by the narrow Strait of Messina-that Europe, in fact, through Italy, seems in the act of booting Sicily. Call his attention to the fact that Cape Spartivento is just at the toe of the boot; that the Gulf of Taranto corresponds very accurately to the hollow or arch in the sole of the foot; that the peninsula of Otranto, terminated by Cape Di Leuca, answers to the heel, and that this heel approaches closely to the coast of Turkey, being separated from it only by the Strait of Otranto; that Naples and Mount Vesuvius are but little above the instep of the boot, and that the Apennines run down the middle of the country, just as the seam does in the side of the boot. such assistance, my word for it, the child will always have a clear and distinct idea of the shape of Italy-the location of the Alps, the Apennines, Sicily, Cape Spartivento, the Straits of Messina and Otranto-the Gulf of Taranto and Cape Di Leuca-Naples and Vesuvius; and one thus instructed, will be able to construct, from memory alone, an outline map, embracing at least the particulars named, that will show a very fair approximation to the reality. Weeks of drilling in the text books, and pages of description, would not infix so much knowledge.

Again, if you would impress the geographical outline of the Spanish Peninsula upon the pupil's mind, you cannot so well attain your end as by showing him a Spanish dollar, and calling his attention to the shield, the form of which is exactly that of the Peninsula; to the Castle and the Lion—the ancient Christian kingdoms of Castile and Leon, whose union freed Spain from the Saracens; to the two pillars, emblems of the

Pillars of Hercules, Gibraltar and Ceuta; to the motto that entwines them, "Ne plus ultra," "there is nothing beyond"—alluding to the fact that Spain was looked upon as the outermost edge of the earth until 1492, when she herself pushed beyond.

Coming nearer home, how can we assist a child to a lasting impression of the outline and leading geographical features of our own State? Put before him an outline or other map of California, and show him that, including the Peninsula of the Mexican Province-Lower California-it closely resembles, in shape, a side view of the body of a man from the waist down, with the leg bent at the hip and the knee. You will remember that our eastern boundary line runs due south from the southern line of Oregon to Lake Bigler, thence it makes a bend to the east, running in a south-easterly direction to the river Colorado, thence southerly down that river to its intersection with the Gila, near the Gulf of California. Now call attention to the fact that our northern boundary corresponds very accurately to the waist of a man-Cape Mendocino, to the hip-so much of the Eastern boundary as runs due South, to the stomach-so much of the State as lies below Sacramento, to the upper portion of a leg bent-so much of the Colorado River as forms our eastern boundary, to the knee bent, and Lower California to the leg below the knee. Our southern boundary may be likened to the garter worn by gentlemen when knee breeches were the fashion, or to the upper edge of the stocking. With such aids, a child can never forget the contour of our State, and will never be at a loss to draw from memory an outline map of it, with very tolerable exactness.

Extend your similes further, and show that the Coast Range of Mountains, running from the neighborhood of Mt. Shasta all the way down to Lower California, and thence to Cape St. Lucas, answers pretty nearly to the outside seam in a trousers' leg; San Pedro, the port of Los Angeles, to the angle just under a bent knee; Fort Yuma on the Colorado, to the old-fashioned knee-buckle; Humboldt Bay, to the buckle behind, used to contract the waist of pantaloons; Lake Bigler, to the angle made by the body with the femur or thigh bone when bent, and so on, continuing your fancied resemblances as long as your ingenuity will suggest.

Enough has been mentioned to show that the outline, leading geographical features, and limiting points of importance of the

State, may, by this expedient, be ineffaceably impressed upon

the pupil's mind.

With ordinary ingenuity and a little preparation, the Teacher may find familiar objects to which to liken other countries. It will involve some trouble, perhaps, at first, but it will save more in the end.

One word upon the teaching of spelling and defining. In this, no assistance can be obtained from the senses, either directly by a picture or model of the object, or indirectly by its real or fancied resemblance to some other object.

Here the memory alone must be relied on.

If ours were a phonetic language we might appeal to the sense of hearing through resemblances in sound.

If the pupil once learned that bough spelled bough, he would not hesitate, when asked, to spell cough—cow; rough, row. But as our spelling is extremely irregular, the same letter assuming as many functions, according to its company, as the figure 0 in arithmetical notation, there is no expedient to abridge the labor of memorizing each word. And just here, I cannot forbear quoting a portion of Horace Mann's amusing description of the complexities and absurdities of our spelling, and the consequent sufferings of the unfortunate child learning to spell. He happily describes the five vowels as five harlequins. "According to Worcester, these five letters alone have 29 different sounds, viz.: a, 7; e, 5; i, 5; o, 6; and u, 6.

But the difficulty of their number is nothing compared with that of their masquerading. In almost every line we read, these letters reappear several times; but however short their exit from the stage, they reenter in a changed dress. But not only does the same letter puzzle us with its multiplicity of sounds, but different letters have the same sound, and combinations of letters assume the sound of individual letters; and they mock us by playing back and forth with the facility and malignancy of evil sprights.

Thus, as Mr. Pierpont has shown in his "Little Learner," there are eight letters and combinations of letters which have the first sound of a, as in fate, viz.: a, in date; ai, in paid; aigh, in straight; ay, in day; eh, in eh (exclamation); eigh, in eight; and ey, in they.

So the first sound of e is given to e, in be; to ea, in bean; ee, in bee; ei, in seize; eo, in people; i, in machine; ie, in grief; and o, in you.

The first sound of o is given to o in note; oa, in boat; oe, in doe; oh, in oh (exclamation); ough, in borough; ow, in throw; owe, in owe; and eau, in beau.

Again; ough appears in these different sounds: bough, cough, hough (the hinder part of the leg of a beast), though, through, thought, thorough, tough.

It was on this combination, or rather dispersion, that the celebrated couplet was formed:

"Though the tough cough and hiccough plough me through, O'er life's dark lough, I still my way pursue."

Take, as specimens, such words as success, or vaccine, where, although the letters cc are placed in juxtaposition, they are sounded differently; or the words holy and wholesome; or the classes of words in which ei and ie are arbitrarily transposed, as perceive, retrieve, deceive, believe, receive, aggrieve, etc.; in one class the i coming before the e, in the other after it, though sounded alike in both cases. Why should there be a t in clutch and crutch, but none in such or much? Take any volume of poetry, and observe with what different combinations of letters the lines terminate, and you will perceive, however certain it is that each rhyme will chime, yet the harmony is only for the ear, not for the eye.

But an exposition of all the contradictions, complexities and tortuosities in the formation of our language, can never be given by any finite mind. It is one immense shuffle and prevarication. However Hibernian it may seem, it is still almost true, that what rules there are, are exceptions, and that the anomalies tend towards a law, not from one.

If the 26 letters were multipled into each other, according to the rule of permutations and combinations, the product would hardly exceed the bewildering diversities of its construction; for after all the differences in the powers of the letters, whether used singly, or in combination, there would still remain unënumerated, all the cases of silent letters, the reduplication or omission of consonants in compound and derivative words, and the transposition of sounds, as in the numerous cases where h, though coming after w in writing, is sounded before it, as in the words when, whether, wherefore, etc.

. In the last named cases the h was formerly written before the w, following the order of the sound, as hwen, instead of when; but this natural arrangement was altered for no other

reason that we can perceive, but only to render it a member worthy to be admitted into the general chaos.

In the same way the words knot and gnarled seem to have been spelled with a k and a g, to make the orthography of the names twist and curl like the things themselves.

By the course ordinarily pursued in teaching a child to read, he is made to repeat the letters, one by one; then in combinations like ba, be, bi, bla, ble, bli, in which each letter has a single and uniform sound.

He is then taken into words, where each of the principal letters, in the rapidity of its changes from one sound to another, outdoes ventriloquism; where the first five vowels to which respectively he has been accustomed to give the same alphabetic sound, assume 29 different sounds, so that, according to the doctrine of chances, it will happen only once in five or six times that he will be correct, if he sounds them as he was taught. Give a child, for instance, such a sentence as this: "The farfamed walls of the palace are fast falling to decay." He begins by giving the alphabetic sound of a to the a in far, and of course calls it fare; he is corrected and told to pronounce it far; he catches the sound of a in far and proceeds to the next word, which he calls famm'd; here he is again corrected and made to say famed; he then pronounces walls, wales, according to the last direction; but this will not do, and he is obliged to say walls; in consequence of this he gives the broad sound to the first syllable in palace calling it pall; here he is snubbed and told to say pal; he does so, and hurrying to the next syllable, he sounds the a in ace as in pal, making the word pallas. The teacher now begins to think him a fool, and is confirmed in the opinion, when he carries forward the obscure sound of a, as in palace, and applies it, instead of the grave sound, to a in are.

The poor child, now seeing the same letter in the next word, fast, is in a quandary, and will not venture to pronounce it, but waits to be told; being told how to pronounce fast, he abides by the direction and says falling, when he is violently arrested, and made to utter falling, falling, falling, with repetition and emphasis; secure in this sound, he comes to the last word which, in imitation of the preceding, he calls decâ, and gets slapped, if not flogged, for his stupidity.

Who has not seen a hapless child, when first carried from the alphabet into short words, after he finds that none of the letters with which he thought he was so well acquainted, will now

answer to their names, but that all balk and tantalize him, and chatter in his face with unknown sounds—who has not seen him gaze up in bewilderment into the teacher's face, with such a piteous and imploring look as would almost make statuary weep?

In further illustration of the ever changing sounds of the vowels, take the following verses miscalled "Univocalic Verses." The Teacher who examines these will no longer blame the young reader who fails to give the correct pronunciation of words. The plan of teaching the alphabet, usually adopted—not the child—is responsible for the failure.

A.

THE RUSSO-TURKISH WAR.

"Wars harm all ranks—all arts, all crafts appal; At Mars' harsh blast, arch, rampart, altar fall! Ah! hard as adamant, a braggart Czar Arms vassal swarms, and fans a fatal war! Rampant at that bad call, a vandal band Harass and harm and ransack Wallach land! A Tartar phalanx Balkan's scarp hath past, And Allah's standard falls, alas, at last!"

E.

THE FALL OF EVE.

"Eve, Eden's Empress, needs defended be;
The serpent greets her, when she seeks the tree.
Serene, she sees the speckled tempter creep;
Gentle he seems—perverted schemer deep—
Yet endless pretexts, ever fresh, prefers,
Perverts her senses, revels when she errs—
Sneers when she weeps, regrets, repents she fell,
Then, deep-revenged, reseeks the nether Hell."

Τ.

THE APPROACH OF EVENING.

"Idling I sit in this mild twilight dim,
Whilst birds, in swift, wild vigils skim.
Light winds in sighing sink, till, rising bright,
Night's virgin pilgrim swims in vivid light!"

In connection with this subject of the utter lack of art in the construction of our language, the following "Humble Petition of the Letter C," taken from the Zanesville Gazette, will be found suggestive, as well as amusing. It is addressed:

"TO THE HONORABLE THE ARBITERS OF THE ENGLISH LANGUAGE:

"Most High and Mighty Sirs:—The appearanse of so humble an individual as the undersigned, before your august body, is, perhaps, as well kalkulated to exsite surprise in you, as awe in him; but when you reflekt that ever sinse his introduktion into the mashinery of the English language, over whose destinies you hold supreme kontrol, he has been the subjekt of grievanses the most intolerable and usurpations the most foul, you will, it is hoped, find a palliation for his offense, and be konstrained to regard his prayer in a spirit less of reproof for his boldness than of kompassion for his patient long suffering.

"But to show you that your petitioner has just kause of komplaint, a kandid exhibition of fakts is nesessary.

"1st. Your petitioner, when plased before a, o, u, r, and t, as in car, core, cut, crash, and tract, though standing in bold relief, as large as life, is always usurped in his funktions by the ugly k, and it really appears to him that he is permitted to okkupy these stations only in derision, or to hide the deformity of his suksessful rival; and even when your petitioner takes an humbler station at the end of a syllable or word, as in fraction, public, antic, and the like, he is not permitted to perform the servile labors belonging to it, but is superseded by the same ugly but enviable rival.

"2nd. Your petitioner when plased before c, i, and y, as in lace, cider, mercy, is not permitted to enjoy the honors of his position, but they are invariably usurped by the graseful, singing, slippery s, to the no small disgrase and mortifikation of your petitioner.

"3d. When plased before a diphthong, and preseded by an aksent, as in ocean, social, species, spacious, saponaceous, your petitioner is deprived of the blushing honors that he did think were koming thik upon him, by sh.

"4th. Your petitioner, in some kompanies, as in discern, sacrifice, is only a pitiable proxy for the zigzag z, and in other kompanies such as corpuscle, czar, indict, victuals, he has the double mortifikation of finding that your honorable body have deprived him not only of the right to speak for himself, but also of the poor komfort of speaking as proxy for any other.

"5th. Even when in combination with his friend and ally h, as in chair, child, milch, bench, chaos, chasm, your petitioner does not enjoy the honors he onse expekted to reap from that alliance, but is lost in the superior glories of tsh, sh, or his most inveterate rival k; and sometimes, as in drachm, schism, yacht, he is under the painful nesessity of witnessing the humiliating silense that both he and his friend are kompelled to observe, even in konspikuous stations.

"6th. Besides all these, certain signs or marks, such as the sedilla, and, by Webster, a horizontal line through, have been invented to lead the ignorant to a knowledge of the individual by whom the honors of his station are stolen from your petitioner; thus kompelling him, not only to witness his own humiliation, but aktually to bekome the publisher of his own shame, by karrying marks of it upon his person.

"Your petitioner, therefore, begs your honorable body, in the humblest and most respektful manner, that from this time forth, k, s, z, tsh and sh, be kompelled to assume in their own proper persons, the stations they have so long okkupied through him, and to bekome personally responsible for the faithful and korrekt performanse of the funktions of those stations, and that your petitioner, henseforth and forever, be exkused from performing servise in the English language.

"And your petitioner will ever pray.

" C."

In a number of schools, some of the difficulties described by Horace Mann are now obviated by teaching the child to give, not the common alphabetic sound, but the sounds which the letters are to have in combination, according to the phonetic method, but there are still thousands who teach in the old fashioned way.

Some distinguished Educators—Horace Mann among them—strongly urge that whole words should be taught on the principles of the object lessons, before teaching the letters of which they are composed. Of the advantages of this method, I cannot speak from experience. Some who have tried it speak very highly of it.

One thing is certain, the last generation of Teachers had not hit upon the proper method of teaching spelling. Their method has proved a failure, for it is astonishing how many persons of no little pretension to attainments, including but too large a number of Teachers, are at this day utterly reckless of the mysteries of spelling.

They remind me of the little boy who spelled *Okeland*, Oakland, and when corrected, replied sturdily—"Well, that may be your way of spelling it—you may spell it just as you please, but this is my way."

The ingenuity some people exhibit in misspelling even simple words is really wonderful.

The ingenuity of the man who employed Kaughphy to spell what "Coffee" would so much more easily spell, does not exceed that of some applicants for Teachers' certificates, whom I have examined.

The time devoted to the study of definitions by young children, I look upon as almost wasted. If the words are common no definition is needed. In the case of unfamiliar words, the definitions are as unintelligible as the words defined. They convey no idea whatever to the child. There must be a definition of the definition—a square of the definition, so to speak—and the obscurity, it may be said, increases as the square of the definition. Our dictionaries have been greatly improved in modern times, but to the child, many of the definitions are about as lucid as that given in the first edition of Johnson, of the word "boy"—"not a girl." The reader naturally turned to look for "girl," and found that it meant "not a boy."

Prof. Fowle gives an amusing illustration of the mystification produced by definitions of even common words.

In preparing a new work to oblige children to write the words of their spelling books, he was in search of a simple definition

of a "flounce" and a "periwig," both common things and well-understood. He says—"I turned to the most popular, and really the best school dictionary, and found the definitions as follows:

- " Periwig. Adscititious hair.
- "Flounce. A loose, full trimming, sewed to a woman's garment so as to swell and shake.

"I then asked an intelligent child what sort of hair he thought 'adscititious hair' was.—'I do'nt know;' said he. 'Is it hair that is all in a snarl?'—I then asked an intelligent girl what she would call 'a loose, full trimming, sewed to a woman's garment so as to swell and shake,' and she said at once, 'an April fool.' She was thinking of the tag she had pinned to the back of her companion's dress on the first of April. So much for the definition of easy words. I then had occasion to look out the word 'Imbricated,' and found that it meant 'Indented with concavities.' I asked a Miss who was reading, the meaning of the word 'anodyne,' in the expression, 'the anodyne draught of oblivion,' and she looked in the dictionary, and mistaking the a which denoted that the word was an adjective, for a part of the definition, she said anodyne meant 'a mitigating pain.'"

If the memory is treacherous, the definition will soon escape, almost as soon as it is learned, or it may be applied to the wrong word. When a class of young Misses was once reading to me, the word "wedlock" occurred, and, as usual, I asked the meaning of it. "I know," said a lively little girl, who had 'studied dictionary,' as she called it, at another school; "it is something they fasten barn-doors with."

The same writer gives an amusing instance of the inapplicability or ambiguity of Murray's definition of a "Preposition." "In the first school I undertook to teach," says he, "I sought, at the outset, to ascertain the progress the highest class had made in Grammar. I selected a sentence from the reading book. It was, 'David smote Goliah.' 'Well,' said I to the first pupil, 'what part of speech is David?' 'A noun, Sir.' 'What is a noun?' 'A substantive or noun is the name of anything that exists, or of which we have any notion.' 'Is David, in this sentence, the name of anything that exists?' 'No, Sir; David died long ago.' 'Is it the name of anything of which you have any notion?' 'Yes, Sir; I have some notion of him as a very small man, and a king.' As the object was only to ascertain the part of speech, I asked the next pupil what part

of speech 'smote' was. 'A preposition, Sir.' 'A preposition!' said I, with astonishment, 'pray what is a preposition?' 'Prepositions serve to connect words with one another, and to show the relation between them.' 'Very well,' said I, with all the importance of a Teacher who felt it his duty to expose the ignorance of his pupil, 'what words does 'smote' connect?' 'David and Goliah, Sir, for there is nothing else to connect them.' 'Yes,' said I, somewhat flurried, 'but what relation does it show between them?' 'Not a very friendly one I should think, Sir,' said the pupil. I was struck with the truth of the answers, and had the honesty to say, 'You are right, Miss, or the definition in your book is wrong.'"

And just here let me give the Scotchman's definition of "Metaphysics." You will appreciate it. His head had been thoroughly muddled by the clashing theories and fine-spun distinctions of Dugald Stewart, Kant, and Thomas Brown. To a friend who asked him "What is Metaphysics?" he exclaimed, at last, in despair:

"When the mon who hears does na ken what the mon who speaks, means, and when the mon who speaks does na ken what he means himself—that is Metaphysics."

Bishop Berkeley is the author of one of the wittiest definitions I have ever met with. The famous Dr. Halley, the mathematician and astronomer-royal of England, wrote a number of valuable scientific works. In some of them, he trod upon the toes of the theologians, and he was by them accused of infidelity. A controversy sprung up between him and Bishop Berkeley upon the nature of the soul, spirits, etc., Halley contending that these subjects were too etherial and intangible to admit of demonstration—that it was unphilosophical to reason upon the nature and qualities of things whose existence could not be proved, etc. Berkeley retorted that the same style of argument would upset one of the most beautiful fabrics of the Mathematicians—to wit, Fluxions, introduced but a little while before by Newton in his Principia, and greatly affected by Halley. The received definition of a Fluxion, at that time, was "A quantity infinitely smaller than any finite quantity, containing a quantity infinitely smaller than itself, and that again containing a quantity infinitely smaller than itself, and so on ad infinitum."

"This," said Berkeley, "is nothing more nor less than the

ghost of a departed quantity, and yet, you write volumes upon it."

Returning to our subject of the study of definitions in school, I have always thought, with Mr. Fowle, that "The true place to teach a child the meaning of a word is not in the dictionary, where it may have a dozen meanings apparently contradictory or perfectly unintelligible, but in the reading lesson, where the word is used, and where its very use often defines it. The faithful Teacher will never miss this opportunity to explain words, not only because the interest and the intelligent reading of the particular lesson depend upon it, but because he will never, in any other department of instruction, have so good a chance to teach the correct meaning and use of words."

A Teacher may forever fix the recollection of an important fact or leading principle, by the relation of an amusing incident, entertaining anecdote, or pertinent story. He should not be above a joke now and then. It will not hurt either him or his children. *

Nothing, perhaps, so forcibly impressed me with the true principles of inductive philosophy as the story told me by my Teacher, of the trick played by Charles I, (I believe it was,) upon the savans who composed the Royal Academy of Sciences. In solemn audience, he demanded of them to explain why it was that when you put a fish weighing 20 pounds into a vessel brimful of water, the water will not overflow. You all recollect the story. The philosophers puzzled for a month over the question, each inventing a different theory. At a subsequent audience they presented their various explanations, but were confounded by Charles telling them that none of their labored theories would answer, because the water would overflow.

Many a time since has this story saved me from wasting time in speculations upon impossible, improbable, or unauthenticated phenomena. But a day or two ago, I clipped from the Springfield (Mass.) Republican, a paragraph headed "A Nut for the Geologists." It stated that a returned Californian met a number of his friends in Springfield on Thanksgiving Day, and desiring to astonish them, he brought out a large specimen of crystallized quartz and gold for their inspection. Whilst handling, it dropped upon the floor and broke in two. To the amazement of every one, a cut iron nail was found, imbedded in the gold and quartz. The editor thereupon indulged in some fanciful speculations as to the way in which this nail came to be in this

position, and called lustily upon Geologists for an explanation. It was King Charles' trick over again. There are two questions of a similar character that greatly exercised me when a boy—"If the third of six be three, what will the fourth of twenty be?" and "If a body, moving with irresistible force, encounter an immovable body, what will be the effect?" Little anecdotes like these, act as finger-boards pointing to great principles.

One word more, in conclusion. From what I have said, you will understand that no matter what the branch taught, its leading facts and principles may be ineffaceably impressed upon the mind of the pupil by assisting him with an association of ideas. If this adjunct be witty, odd or striking, so much greater will be the impression produced.

Take Chemistry, for instance. What pupil will ever forget the chemical facts, that Hydrogen unites with Chlorine to form Muriatic Acid Gas, and that Ammonia is the volatile alkali, who hears the following verses, entitled "Lays of the Laboratory," taken from an old English magazine? The first is entitled:

"HYDROGEN TO CHLORINE—A Sonnet.
O tell me when thou wilt be mine,
My beautiful! my green!
O say our atoms shall combine,
My love—my own Chlorine!

How slowly will the moments pass,
The sands of time will run;
As Muriatic Acid Gas,
Till thou and I make one!"

The next is entitled:

"AMMONIA-A Duet.

Ammonia, so frolicsome, whither away?
To sport in the breeze, like the butterfly gay?
Still lively as ever, thou aëriform thing!—
My delight is to constantly be on the wing,
So I'll merrily, merrily soar to the sky
For you know I'm the volatile alkali."

Sulphuric acid has a stronger affinity for Baryta than for most other bases. Hence, when Carbonate of Baryta is introduced into a solution of Sulphate of Magnesia, a double decomposition takes place, producing Sulphate of Baryta and Carbonate of Magnesia. I defy the pupil to forget these facts, and this principle of double decomposition, who hears the following. It is entitled:

"MAGNESIA, THE FORSAKEN ONE, TO SULPHURIC ACID.

Thou hast left me for another—
. Be it so, since we must part:
Seorned affinity I'll smother—
Go—inconstant, as thou art!

Since Baryta, me forsaking,

Thou hast chosen for thy mate,
I, a worthier partner taking,

Will become a Carbonate.

To a rival more alluring,

Now Magnesia leaves thee free;

Form with her a more enduring

Sulphate, than thou did'st with me!"

There is wit, as well as chemistry, in this.

In imitation of this, let us try our hand at a chemical sonnet. You are all aware, that up to a comparatively recent period, the alkalies, potash and soda, were classed by chemists as simple substances.

Sir Humphrey Davy was the first to discover their compound nature. By means of a powerful Voltaic battery, he succeeded in resolving potash into the metal, potassium, and the gas oxygen; and soda, into sodium and ogygen. Both sodium and potassium have so strong an affinity for oxygen, that they will burn when thrown on water, or exposed to the air, at the ordinary temperature. Hence, to preserve them in their metallic state, it is necessary to keep them in naphtha, a liquid that contains no oxygen. Let us endeavor to convey these ideas by a sonnet which we will call—

THE LAMENT OF POTASSIUM.

Sweet Oxygen, my life and my bride!
Sir Humphrey, that man full of guile,
Has torn thee away from my side,
Through that odious Voltaic pile.

No longer as an alkali known,

My nature is utterly changed;

The dear name of potash has gone,

And, as potassium, a metal, I'm ranged.

Oh! Oxygen, pride of my heart!

To thee my soul fondly yet clings,

Though I've long known how ready thou art,

To unite with all created things.

Our parting still fills me with pain;

E'en Naphtha my love can't efface,

I burn to embrace thee again,

And will burn when rëunion takes place.

* Note.—The expedients which I have suggested, are, of course, intended more particularly for use in Primary Schools. Their object is to amuse and interest, while instructing, very young children.

Young pupils do not love knowledge for knowledge's sake, and it is not to be expected that they should.

The Teacher's great difficulty is to awaken their interest and fix their attention, and every expedient will assist in accomplishing these objects, may be legitimately, and should be unhesitatingly employed, even though young hearts bubble up with laughter at its oddity or novelty.

I am aware that the canting, snuffling, Aminadab Sleeks of society look with horror upon this thing of amusing young children in the school-room.

They regard a joke as an implety—the spirit of fun as the spirit of the devil, and laughter, as an echo of hell.

The race of Waxford Squeers is not yet extinct. Let us hope there are few of the tribe left in California.

A. J. M.





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