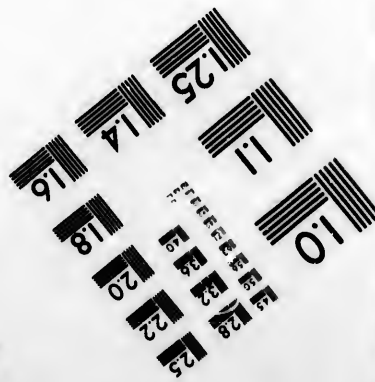
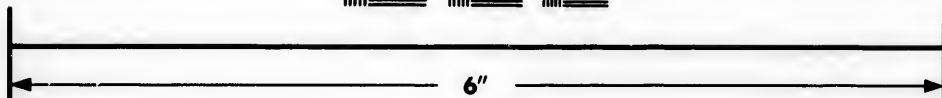
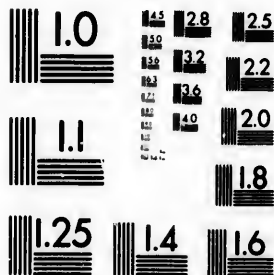


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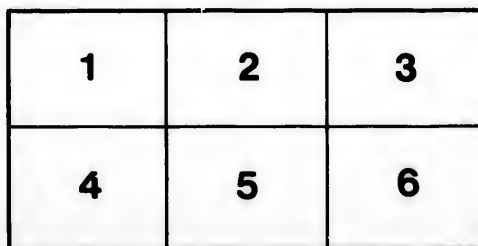
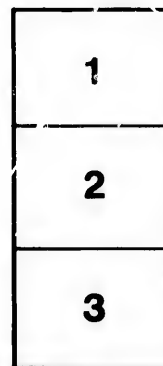
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## THREE GREAT REFORMS—HOW MAY WE HASTEN THEM ?

BY A. H. MACKAY, B.A., B.Sc., LL.D., F.R.S.C., SUPERINTENDENT OF  
EDUCATION FOR NOVA SCOTIA.

(Printed in the Proceedings of the 24th Annual Convention of the Ontario Educational Association in Session with the Dominion Educational Association, held in Toronto in April, 1895.)

One of the special functions of a Dominion Educational Association as compared with simply provincial conventions, is the correlation of movements leading to important reforms, which from their nature can not be carried out or even initiated in one province alone, or in one section of the English-speaking world.

### WEIGHTS AND MEASURES.

One of these is the reform of our weights and measures in order to throw out of the common schools (Elementary, or Public Schools, as you say in Ontario), the compound rules so called. This not only would lessen the tangle of unnecessary Mathematics now forced on young pupils, but it would give time for a more thorough training in accuracy and rapidity in the great mass of computation work more or less necessary to the every day business of life. The Mathematics of the non-decimal scales of notation can be acquired by those who need it, in the High Schools, at an age when the whole can be understood and assimilated in one hundredth part of the time. This would cause a great saving of severe effort on the part of pupils, which could be utilized in some more practically useful way, as every one knows.

But this change in the school work implies necessarily a change in the system of weights and measures used in the whole country, and not only in one province but in every province of the Dominion, and not only here but also necessarily in the British Empire and the United States. If the change could be introduced without much difficulty, every one would say at once, let the change come. The additional simplicity of all common and even uncommon calculations would be a tremendous boon especially to the world of trade and commerce, once the difficulties incident to the act of changing should pass away. Then again the decimal system would put the whole English world of trade and commerce more in touch with the rest of the world, a matter which is becoming so strongly felt in business circles, that not a single great English trade congress is now held without a discussion of the necessity of the change.

It is now thirty-one years since the metric system was legalized in Britain, twenty-nine years since it was legalized in the United States,

and nearly a quarter of a century since it was legalized in Canada. Our Governments have said to the people, "We give you full liberty to use the new and more simple system." But there is no one to show how it is to be done. The more civilized we become, the more bounden we become to each other, the more difficult is it for the few to follow a different line from the multitude in matters having a common relation to each. It becomes necessary, therefore, to organize for the simultaneous accommodation of all affected by such changes of common conventions. So long as we are content with the old, the Legislature is not going to disturb us with the compulsory adoption of any thing new for our benefit. For the Legislatures represent us. The last trade congresses held in Montreal, Canada, and in London, England, for example, revealed a growing anxiety in reference to the matter. English catalogues are beginning to give their quotations in the metric as well as in the old English system, for it is found that foreign buyers being better acquainted with the metric system, order German or French goods at higher prices than the English, because they do not understand the English quotations so readily. In all foreign exporting establishments it is necessary to have clerks understanding and using the two systems. But these business firms are not the people to organize for the general introduction of a change of this kind. They may call for clerks who can do the foreign work as well as the home work. They must accommodate themselves to the conditions they find. Their business is trade, not education. Whose is this work then? Is it not the work of the educators? But the educators cannot well begin by changing the customs in one province or state. The introduction must be simultaneous, probably throughout the whole Empire, at the very least throughout a continent.

I would, therefore, suggest that this Association should appoint a Committee to co-operate with similar Committees which may be appointed by the National Educational Association of the United States, and the highest corresponding organizations in Great Britain and in the more important colonies. The object would be to co-ordinate a movement through the whole English-speaking world to impress on the Education Departments and ultimately on the Governments the advantages of a simultaneous change, and to prepare the people for the same, so that the inconvenience caused would be reduced to a minimum. If the Dominion Parliament, for example, passed an Act this summer making it advantageous to use the metric instead of the old system, the Education Departments of our provinces could have matters so arranged that within one month the whole system could be practically well-known

throughout every settlement in each province. In every school the common metric standards are, I assume, now required to be present. The next bulletin from the Education Departments would direct the teacher to instruct each of his pupils to prepare and carry away from the school roughly accurate copies of the various school standards. Within one week every one of each family would have a very good idea of the new system. The family quotations of the market—or the quotations of the family market—would very soon be converted into the new; and with very little more difficulty than the change of the old pounds, shillings and pence into dollars and cents a few years ago, we could now introduce the entire decimal system into effect, the instant there is some authoritative intimation that the change is going to go everywhere into use. Such an intimation is all that we are waiting for now. The only want is the co-ordinating commission or authority which every part of the English-speaking world will feel ready to acknowledge for such a purpose.

The scientific sections of the English-speaking people are practically a unit in favor of the system. In fact it would be a great relief to them, as they would then need only one system, whereas now they need two. If any wooden-headed Saxon does not like the system because the French were the first to put the new idea into effect and turned the same out into the world dressed in orthography Parisian—"metre,"—he can by simply turning the tail of the dress-coat make it a very respectable English costume for a genuine Greek descendant—"meter,"—of whom no one is jealous to-day. He can reflect that as the system is based on the size of the world its nationality after all must more particularly belong to that people who have the most extensive mortgage on the terrestrial sphere. And if such reflections do not smooth away his objections, then you have made a mistake,—it is not an Anglo-Saxon you have in hand at all.

Then the system is as natural, when we once become used to it, as the present, notwithstanding the largeness of the decimal ratio. The millimeter is the *line*. The centimeter is the breadth of the *nail* of the little finger. The decimeter is the *hand*—the breadth of the palm. The meter is the *stride* or long pace. The square millimeter is the *point*. The square centimeter is the square *nail*. The square decimeter is the *palm*. The square meter is not much more liberal as a unit of "squatting room" than the square yard, but it is no worse. The cubic millimeter is a very fair *grain* of volume. The cubic centimeter every one has at the top of his finger—the top of his little finger if he is a very great man. And if he is not altogether too big for it,



his fist may be enclosed in a cubic decimeter box. And he can have his whole body shipped in a cubic meter box, with room for sufficient packing to enable him to sleep comfortably during transit. As the human body has about the same specific gravity as water, the cubical tip of his little finger gives him a convenient unit of weight—the *gram*. While the cubical box into which he can thrust his fist gives a convenient unit for the measure of capacity—the *liter*. These natural measures are just as accurate as the original natural Troy *grain*, the original king's *foot*, or the original English, Flemish, Scotch, or French *elbow*. And if the present terms are too cumbrous there is more than one way in which we might suggest the reduction of their size to a simple monosyllable, or at least to a dissyllable. Thus the technique of all calculations would be enormously simplified, and so would the course of study in the common or elementary schools, which should be complete in itself for all common practical purposes. And after all, such a course, I believe, would be the most logical (from psychological considerations) as well as the most economical introduction to the High School course, while it would be imposing no unassimilable, hard-labor gymnastics on the overwhelming majority, who can never take a High School course.

#### SPELLING.

Another much more important and much more difficult reform, which when it comes will save us two years of the effort now uselessly, and I believe injuriously, made in the eight years of our common or elementary school course, is the reform of English spelling. Such a reform cannot be rapidly introduced without the organization of a body which would be recognized throughout the English-speaking world as a sufficient authority for the adoption of changes recommended. The duty of originating a movement for the creation or evolution of such a body lies, primarily, I think, with the higher educational organizations. But why should we seek to change our beautiful English spelling? I fancy I hear some one who takes great delight in revising with the most precise accuracy the proofs of some of our most perfect specimens of books or magazines. Now I am sorry to say anything which might appear to value at a low rate the accomplishment of perfect spelling, and more especially if that should be the sole accomplishment of which any individual present is chiefly proud. To change the orthodox spelling of English would be to sweep away from him the one accomplishment for which he appears specially to exist. What would the saving of millions of dollars to the world be for him whom it should

rob of the power of using his sole accomplishment? Simplest vanity! and he is therefore ready to die with his head to the field and his feet to the foe, or in any other position in which he may fall. He will die a martyr for the proper collocation of letters in a word. His fetish is Webster, or Worcester, or the Imperial, or some other little god, who was raised to the rank of a letter constellation by his servile worship of numerous and lesser fetishes, including the ancient anonymous scholar (?) who first spelled sovereign with a "g," because he didn't know better; of the man who thought he might as well stick an "l" into what is now our "could," in order that it might bristle a little more like its fellow privates "would" and "should," who were regularly equipped with a silent gun, and a host of others. Now every one understands it is necessary for us to have some authority to follow; but when it comes to saying that we should follow the blunders made by ignorant people at different ages for ever and ever, because they are English now, without considering whether they might not be changed with a great deal of advantage to all concerned, this is a position none of us will take. A standard is necessary. But never let us cease seeking for a better standard, when the only one we have is grossly defective from so many points of view.

Is it so very defective? If you ask that question (as many whose attention had been called to the matter for the first time have asked), you must pardon my reference to what many will consider very commonplace facts. We cannot by a simple effort of memory recall what the acquisition of correct spelling cost us. For this reason. Good spellers commenced to spell accurately from the beginning of their reading career. The difficulty of spelling is all merged in their consciousness with the essential difficulty of all youthful learning in general. Or they were impressed rather with their success as compared with that of others; so that their impressions in connection with spelling may be those of success and pleasure. But when we observe the same operation going on at the present day, we see that the greatest genius in the orthographic line spends a very considerable portion of time, and utilizes for the trifling matter of the collocation of letters millions of brain cells. This produces the inevitable mental symptoms of cram. The effort is doubly injurious, first as a time-destroyer, second, as a useless if not positively injurious mental wear. The latter I believe is positively injurious when we consider the more important mnemonical strata which by the same effort could be made a permanent part of the ever thinking and acting personality of the human soul. But I leave the psychological question for the time problem which of

itself is enough to settle the fact that the evil is far too expensive to be tolerated for a single hour longer than necessary.

Dr. Morell has stated that "eighteen-nineteenths of the men who fail in the civil service examinations fail in spelling, and all of us who have not failed in government examinations know very well what a cost of time and patience it is to have to recall the spelling of words we want to use. I am not ashamed to say that I sometimes do not know how to spell a word until I put it down in writing, and it commends itself to a sort of organ—I cannot call it sight or thought, it is something between the two, and an enormous amount of time is wasted in that way by all classes." He then goes on to show that the loss of the scanty time for education and its injurious mental effects are a great deal worse than the expense.

Will not those who have not previously given attention to this subject, feel now the truth of the remark made by Richard Morris, Lecturer on English Language and Literature, at King's College, London, and author of several classic works on Historical English Grammar, when he stated that "adults who by some good fortune or other have become proficient in the subject, and have managed to master the intricacies of our orthography, and have become what is rarely found, good spellers, no longer have a true appreciation of the obstacles they have surmounted. All the severity of the previous toil is forgotten and they feel little or no compassion for the young learners who are daily undergoing the drudgery and weariness imposed upon them by the mistakes and blunders of past generations."

When the Roman letters were adopted for the writing of English, it was the undoubted intention to write the English as phonetically as the Latin. If that were done from the earliest times we would now have a perfect history of the development of the language in the literature of the past down to the present day. But although the language changed, the scribes preserved the same form of spelling, thus erasing so far as they had the power of doing it, all records of the course of evolution of the language, so that at the present day, I doubt if any one can tell when our vowel sounds "a", "e", and "i", for example, diverged from their continental values. In fact, the phonetic spelling of the middle-English "Ormulum" of 800 years ago, which probably made it an object of contempt to the contemporary scribes of the times, has turned out to be the best key in the hands of the philologist to unlock the arcanum of ancient Saxon orthoepy, as well as that of early English.

Were our language phonetic in its written form, our children could

be taught to read anything about which they could talk intelligently within two or three weeks at the longest. The most unpleasant and monotonous work of their early years at school now, would then have vanished. Every sound having its sign and every sign representing its sound, the task is simply mastering some 40 signs. But now the English language has at least 200 signs, some computations put them at 563. This is a larger alphabet than the most of us thought we had mastered. But that does not represent all of the labor we have gone through, for to make the matter ten times worse, when you get one of these 563 signs you can not say for certain which of the sounds it should have, unless you have heard it before and memorized the association. For instance, the sound of "e" in *meet* is represented by no less than 40 combinations of letters; of "a" in *mute*, by 34; of "o" in *note*, by 34, etc. On an average there are said to be 14 different ways of writing the 40 different sounds of our language. The word scissors has been calculated to be capable of being spelled according to good English analogy in no less than 596,580 different ways. The simple, euphonious and beautiful name of this queen city of the centre of Canada can be spelled according to good analogies Phthawelaugh-mnthough, Toronto. (See *phthisic, awe, colonel, aught, mnemonics, Thames, though*)

Now the difficulty of spelling meets us at the threshold of school life. The short simple words first presented to the pupil are so unphonetic in their character that even in our Normal Schools there may yet be found some who argue that the phonic method might be better by an infinitesimal degree for the easy advance of the child, some, who contend that the phonetic method would have the advantage, others, that the "look and say" method might make a gain, and still others, that nothing after all is very much better than the old a, b, ab, e, b, eb, i, b, ib.

Let us only look accurately into our own experience. I was one of the good spellers, as it were by nature. In a three days' examination on twelve different papers the Examiners had not a single mark scored against me for a word misspelled. These were the days before I made much acquaintance with any other language than English. Since then my eye has been accustomed to very many examples of cognate words in other languages, as a general rule, more phonetically spelled. I have a suspicion that my eye has grown more tolerant of an un-English spelling now, especially if it deviates from the simpler forms of the same in other languages. But let me to my school.

I remember companions who started with the notion that the letters

of the alphabet represented certain sounds. As soon as this idea was established by a few examples, it was followed by facts bearing the conviction that these letters represented rather uncertain sounds. *Could* was "could"; but *hould* was not "hood." *Enough* was "enough"; but *dough* was not "duff." And he who could not readily cram such facts at six years of age, was, of course, a duffer. To the praise of my noble young chums be it said, such rapid changes of base, and such contradictory affirmations were revolting to the innocent consciousness of youth. But the rod was over them, and the spelling book under them, day after day, for years. One cut the school and bands of bondage by running off to sea. Others less bold pined for the day of freedom, in sulky conformity to the rules of the schoolroom. But I could cram. The spirit of game was in it. The winner always feels rewarded by his victory, and is stimulated to further exertion. Like the others, I had at first my faith in the teacher's word, that letters represented certain sounds. My faith required to be modified directly, and its formula might read "Letters represent very uncertain sounds." Eventually I rose to the highest generalization of the underlying principles, and said in my haste—"All men are liars." Unlike my more independent companions, I did not struggle against the constitution of things. I adjusted myself to my environment, and hence my survival, I presume.

Two things we had to study at home in those old days,—spelling and the multiplication table. The latter was nothing. We could discover the mystery of the whole table ourselves by the use of strokes upon our slates, pebbles on the roadside, or by the counting of our fingers. And then we had only fifty or sixty numbers to memorize. But words were innumerable to us; and the arrangement of letters beyond any general law which we could then discover. Our time at home and in school was principally absorbed in memorizing, by ear and eye, the collocations of letters which stood for words. The stars formed interesting clusters in the heavens; but our eyes were always directed to clusters of letters. The sepals and petals of the sweet wild flowers decking the roadside, were grouped in fascinating circles of living colors; but our eyes were doomed to grow dim on the black and white groups of letters. The bird's notes smote the ear with rapturous sensations; but the only hallowed pleasure for us was the successful sounding of grotesque arrangements of letters. Letters, letters everywhere! We were becoming as literary as the Chinese.

"Spell Phthisic" (said our amiable and most conventional teacher, whom we all liked). Jim, a little cunning rebel as he was, answers, "T-i-s-i-c."

"No, P-h-t-h-i-s-i-c," said the teacher, and the dialogue went on.

"Why do you spell it with a *phth*?"

"To show that it is from the Greek and means consumption."

"Couldn't we know it to be from the Greek and meant consumption without the *phth*?"

"Perhaps you could; but you would have to turn up the dictionary for it."

"And if you spell it with a *phth* you needn't turn up the dictionary, need you?"

"No, you blockhead, that is to say, if you knew Greek, the form of spelling would tell you that it was Greek."

"Do English people generally know Greek before they learn to spell English?"

"Of course not. What a foolish question!"

"Well, why did they make the word so that we have to learn Greek spelling before we learn English spelling?"

"Why, because that is the right way to spell, who ever heard of it being spelled any other way? And when you learn Greek it will strike you with great pleasure to see how simple the spelling and meaning of *Phthisic* would have been had you only known Greek before you learned to spell."

"Do all English people, then, learn Greek after they learn to spell so as to be struck with this great pleasure?"

"Of course not. But why do you ask?"

"Well,—I was only thinking. But how many do learn Greek?"

"Perhaps 20,000, according to the *Encyclopædia*."

"And how many learn English?"

"About 100,000,000."

"And how many 20,000 are there in 100,000,000?"

"About 5,000, of course. But what of that?"

"Is not that the same as if every one in a town larger than Pictou should be compelled to spend his time in learning English words with Greek spelling, so that *one* boy should have the pleasure of seeing, when he comes to study Greek, that some of the English words he learned were spelled pretty much, although not exactly, like Greek?"

"You had better hold your tongue, Jim, you are a dangerous boy—to dare to question the proper way of spelling words, which I have by dint of careful labor for years become almost perfect in, in which I have attained more excellence than in any other subject. You conceited, radical little scamp!—keep mum, and spell *Phthisic*."

Had Jim been able to quote in retort, what a few years afterwards

was stated by one of the most eminent scholars in the English world, A. H. Sayce, Professor of Philology in the University of Oxford, and author of the international text-book, "The Science of Languages," which of the two would have wilted? Here it is, "English spelling has become a mere series of arbitrary combinations, an embodiment of the wild guesses and etymologies of a prescientific age, and the hap-hazard caprice of ignorant printers. It is good for little else but to disguise our language, to hinder education and to suggest false analogies."

The late Connop Thirwall, Bishop of St. David's, author of the "History of Greece," and classical examiner at the Universities of Cambridge and London, says, "I look upon the established system of spelling (if an accidental custom may be so called), as a mass of anomalies, the growth of ignorance and chance, equally repugnant to good taste and common sense."

Listen to the Right Hon. W. E. Gladstone, a statesman as well as a scholar: "I often think that if I were a foreigner, and had set about learning English, I would go mad. I honestly could say I cannot conceive how it is that he learns to pronounce English, when I take into account the total absence of rule, method and system, and all the auxiliaries that people usually get when they have to acquire something difficult of attainment." Max Müller adds, "that a child who believes what he is taught in learning to spell the English language, will hereafter be able to believe anything." While Lord Lytton, the novelist, dramatist and poet, with no lack of vim, uses these words: "A more lying, round-about, puzzle-headed delusion than that by which we confuse the clear instincts of truth in our spelling was never concocted by the father of falsehood. How can a system of education flourish that begins with so monstrous a falsehood which the sense of hearing suffices to contradict?"

Now both custom and the law force us to consume years of a boy's life in what is to him a pure effort of cram, without the first glimmer of philological interest which the older teacher fancies the boy must somehow feel because the teacher feels it himself. But it is impossible for the teacher to transfer his feeling to the boy until the boy has had some of the teacher's experience. But the spelling must be crammed before that is possible; the cramming of what must be to all young children arbitrary agglomerations of letters in many cases lacking the advantages of the Chinese characters.

And what is the time lost in this work. About ten years ago I took some very accurate statistics for the solution of this problem in the town

of Pictou, Nova Scotia, of whose schools I was then Principal. I prepared blank forms for each department to contain the names of all the pupils of each. The teacher was instructed to obtain from each parent or guardian an accurate statement of the time taken by each pupil in the study of home lessons—of each home lesson. From these returns it was a very simple thing to calculate the percentage of home study absorbed in the department of orthography. From the time tables in each department, the percentage of time devoted to orthography in the school room was computed. The gross results were briefly as follows :

Pupils from	5	to	7	years	were	spending	64	per	cent	of	time	on	spelling.
"	"	7	"	9	"	"	47	"	"	"	"	"	"
"	"	9	"	11	"	"	37	"	"	"	"	"	"
"	"	11	"	13	"	"	25	"	"	"	"	"	"

That is forty-nine per cent. of the whole time of study at home, and in school for the first six years was absorbed in spelling lessons. Or over forty per cent. of the first eight years of school time. But making allowance for other work done incidentally in connection with the spelling, such as the study of definitions, etc., and of incidental reading, expression and elocution in the higher classes, more than twenty-five per cent. of the first eight years of school work was absorbed entirely in overcoming the difficulties of orthography, such as do not now exist in simplified phonetic languages as German, Italian, Spanish, Danish, and even Welch. There is nothing more clearly proved to my mind than that the English child is handicapped to the extent of two years' work by the difficulties of our orthography as compared with the nationalities above referred to. What a tremendous boon would a relief of two years' work be to our crowded course of study in our elementary schools! What a splendid opportunity would be given for the study of the correct and fluent use of the English language under such circumstances! Now the most of our time is spent in drudgery which is not English language at all, but which is so closely connected with it as to create in advance a distaste for the study of the language itself by the unfortunate association.

In the London schools, and in the schools of several of the larger cities of the United States, similar investigations have been made, all proving that the loss of time is from two to three years. Such, beyond the limit of any reasonable doubt, is the time lost in this one feature of our system.

But there may often be worse than lost time in it. Of all tasks for young children, spelling with its polyglot affinities, its half phonetic, half hodge-podge orthography, is the first, as a general rule, to beget a



distaste for school life. Those naturally crammers pass. And here we get a glimpse of another possible effect. I fear our spelling in the elementary stages of school life tends to sift from the great current of potential scientific scholarship in its earliest manifestations, the more original and inventive of its minds. The assimilator passes, the inventor is disgusted. No wonder we have no Shakespeares in these days of spelling drill. No wonder so many geniuses arise outside the ranks of the school-trained. Chinese culture may be very delightful to those once intoxicated with it, but the science-loving, common-sense Japs will inherit the earth. "But surely the evil of our system is exaggerated by this presentation?" I fancy some one says. That is just what I wish to be carefully examined.

Max Müller says: "English spelling is a national misfortune, and in the keen international race between all the countries of Europe, it handicaps the English child to a degree that seems incredible till we look at statistics." Again he makes a rough quantitative estimate: "Millions of children at school might learn in one year, and with real advantage to themselves, what they now require four or five years to learn, and seldom succeed in learning at all." Read the treatise of Dr. J. H. Gladstone, F. R. S., of the School Board of London, in which he deduces from English statistics conclusions as strong as these I have presented. I can quote but a line: "If English orthography represented English pronunciation as closely as the Italian does, at least half of the time and expense of teaching to read and spell would be saved." This is strong testimony to the extent to which the English child in his education, and the English language in its adoption by other races are handicapped by our spelling. Gladstone's researches have been very extensive and thorough. Apart from its spelling, the English language is the most concisely expressive, it is said, of all languages; and by reforming its spelling, besides removing the tremendous difficulty of its orthography, it might be made seventeen per cent. more concise. Such considerations, I have no doubt, prompted the following expression from Jacob Grimm, the great German philologist: "The whimsical orthography of the English language stands in the way of its universal acceptance." As compared with German, the report of the Faculty of the University of Mississippi to the State Legislature, in 1879, makes the following statement in clause 2:—"Spelling hinders our people from becoming readers, (1) by the length of time it takes to learn; (2) by the dislike of reading it induces. An average German learns, they say, in about one-third the time."

In this connection I quote a few lines from an address of Pro-

essor F. A. March, published in a valuable circular from the Bureau of Education at Washington under the National Government of the United States: "Three years are spent in our primary schools in learning to read and spell a little. The German advances as far in a twelve-month. A large fraction of the school time of the millions is thus stolen from useful study and devoted to the most painful drudgery. Millions of years are thus lost in every generation. Then it affects the intellect of beginners."

He goes on: "We ought then to try to improve our spelling from patriotic motives. If this do not move us, it may be worth while to remember that it has been computed, that we throw away \$15,000,000 a year paying teachers for adding the brains of our children with bad spelling, and at least \$100,000,000 more paying printers and publishers for sprinkling our books and papers with silent letters."

Were our spelling system perfectly phonetic, mechanical reading and spelling could be mastered in less than one year. It is perhaps not generally known that in foreign countries, and even in America and England, our language is taught in some schools at first from phonetic books.

They then pass on to the ordinary English, and find the process to pay. Mrs. E. B. Burnz, of New York, says: "The phonetic teaching in the Fisk school (at Nashville), as elsewhere, proved beyond all cavil, that with phonetic books as much could be accomplished in four months, in teaching to read, as by a year with the common method, and moreover, it showed that there is no difficulty experienced by children in passing from phonetic to the ordinary printed book." How much more satisfactory would the system be were the ordinary book not in existence! Mr. William Colbourne, of Sturminster, England, is quoted as follows: "My little Sydney, who is now a few months more than four years old, will read any phonetic book without the slightest hesitation; the hardest names or the largest words in the Old or New Testament form no obstacle to him. And how long do you think it took me—for I am his teacher—to impart to him this power? Why, something less than eight hours! You may believe it or not, as you like, but I am confident that not more than that amount of time was spent on him, and that was in snatches of five minutes at a time, while tea was getting ready. I know you will be inclined to say: 'all that is very well, but what is the use of reading phonetic books? He is still as far off, and may be farther from reading roman books.' But in this you are mistaken. Take another example, his next elder brother, a boy of six years, has had a phonetic education so far. What

is the consequence? Why reading in the first stage was so delightful and easy a thing to him, that he taught himself to read romanically, and it would be a difficult matter to find one boy in twenty, of a corresponding age, that could read half so well as he can in any book." Am I not then under the mark, when I say that two years of school work in Canada are uselessly wasted, and worse than uselessly wasted in spelling.

But suppose some one thinks, "what is said is all true, but it would be a pity to spoil the etymology of our language." I shall then produce a greater authority than the thinker to settle his qualms. Max Müller, Professor of Sanskrit and comparative philology at Oxford, England, author of "History of Ancient Sanskrit Literature," and of "The Science of Languages," shall speak: "An objection often made to spelling reform is that it would utterly destroy the historical or etymological character of the English language. Suppose it did. What then? Language is not made for scholars and etymologists, and if the whole race of English etymologists were really swept away by the introduction of spelling reform I hope they would be the first to rejoice in sacrificing themselves in so good a cause. But is it really the case that the historical continuity of the English language would be broken by the adoption of phonetic spelling, and that the profession of the Etymologist would be gone forever? I say no, most emphatically, to both propositions." On the same point, Professor Sayce, of Oxford, says: "We are told that to reform our alphabet would destroy the etymologies of our words. Ignorance is the cause of so rash a statement." Henry Sweet, President of the Philological Society, London, says: "The notion that the present spelling has an etymological value was quite popular twenty-five years ago, but this view is now entirely abandoned by philologists; only a few half-trained dabblers in the science uphold it." The regent of the "Illinois Industrial University," Gregory, puts it in this way: "Small men will still deery, and ignorant men will deplore the movement to improve English spelling, but it has within it the force of truth and the energy of a great want."

J. A. H. Murray, Past President of the Philological Society of England, and editor of the great Historical English Dictionary, the greatest compendium of English language lore ever projected, says: "The question of etymology was long ago settled and done with by philologists. It is pitiful to see an expression of Archbishop Trench—uttered, when English philology was in its prescientific babyhood, and scarcely anything was known of our language in its earlier stages save the outward forms in which it had come down to us in manuscript or print—quoted

against the rational reconstruction of our spelling. But it is also unfair to Dr. Trench himself, who then stood so well in the front of philology, that we may be perfectly sure that if leisure had been given him to keep pace with the progress of the science, he would now have been second to no one as a spelling reformer. For philology has long since penetrated the mere drapery and grappled with the study of words' not as dead marks, but as living realities, and for these living realities it first of all demands, 'Write them as they are; give us facts and not fictions to handle.'

The late Professor Whitney, of Yale, says: "Of all forms of linguistic conservatism or purism, orthographic purism is the lowest and the easiest. \* \* The real etymologist, the historic student of language, \* \* would rejoice above measure to barter every 'historical' item in our spelling during the last 300 years for a strict phonetic picture of the language as spoken at that distance in the past."

Three years required to master English reading and spelling when only a few months would be necessary with a proper spelling! Let our farmers, our laborers and artisans, think of the enormous tax put upon them by this system. Thousands of them cannot find sufficient time to get even a good common school education, a fact largely due to our mode of spelling. Think of the time spent, the sacrifice endured by many of our poorer people, to send their children to school for a short time. But in what are they required to spend their time there? First and foremost, in learning what is not of the smallest sensible value to them—for at least two years of their time—and what, in addition, disgusts tens of thousands with everything associated with school education. What would not those two years allow us to do in our course of study? More language drill—useful in its results: more natural science teaching—attractive in its subjects, perception-strengthening in its influence, reason-training in its effects. Less slavery, more love for study, fewer rebels, more recruits for advanced knowledge. Nothing to lose, everything to gain.

The first names in linguistic scholarship and philology in England and America, have declared in favor of reform, the first names in all ranks.

But it may be urged that language is a natural growth, and that no artificial effort can control it. All right. Then let it grow and remove the artificial and false system of spelling which partly represents the language and partly misrepresents it, leaving no record of its growth when it does grow. Then you may turn around and say, "Oh! it was the spelling I meant. Spelling is a natural growth, and nothing

artificial can control it." Indeed! We all know that nothing is more artificial than spelling, and that it requires all the art of society aided by the prescriptions of law to preserve its present unnatural and injurious form. All we want is that some authority to change a bad standard into a good may be created. Such an authority must have as absolute a power to change for the better as the present authority to preserve for the worse or the past authorities to originate the "sanctified confusion" we are condemned to worship with the sacrifice of our substance and our children.

Artificial authority has made the Italian and Spanish languages nearly perfectly phonetic. In 1876, a powerful society was formed in Germany for the simplification of its spelling which even then was almost phonetic. In 1880, by ministerial decree, the simplified spelling went into effect in all the elementary schools, and in April, of 1885, into all the higher schools. It is ten years since, but the huge inertia of the English people has not yet been overcome, although they are the peculiar people who have really something to reform, and much to gain from it. The French Academy has come in ahead of us, with the object, as it is stated, "of making the task of learning the language more easy by making its orthography more logical, and thereby to facilitate its use by foreigners." We, with a spelling much more illogical are not yet moving, and with an orthography much more formidable to the foreigner, neglect to utilize to the extent within our reach the unparalleled inducements to acquire the English language to-day. In the new Dictionary now being published under the direction of the French Academy, there are changes made in about 1,200 common words which are to go into use immediately. And these will to some degree change the "look" of the French page, but they will not make the literature any less legible to the reader who has had an hour's practice.

There would be some inconveniences in the change of our orthography. But they would not be at all serious. It would not make the old literature illegible. It would in fact enable our young people to read with our old orthography at an earlier age than they can now, as some of the experiments to which I have referred seem to prove. Within one year the new orthography would look all right to the most fastidious worshipper of our present silent letters. While the present system would look even more forbidding than that in vogue two or three centuries ago does now. Let us briefly review some of the advantages of the proposed reform.

1. Our present alphabet is defective, redundant, and inconsistent;

and is not at all used as all alphabets were originally designed to be used, and as they now are practically used.

2. The spelling of English was always changing in its early history although unfortunately not in conformability with the changes in the language itself; and no good reason can ever be assigned why it should be permanently congealed into the rigid, everlasting form of a particular stage of development in the seventeenth century.

3. The spelling of many languages has been reformed by the authority of learned academies or of governments, as ours is by similar authority restrained from undergoing reform. It is evident, that all required to reform our spelling is the creation or evolution of a rational authority for the purpose.

4. It would save at least two years of useless, if not injurious effort in our schools, and give so much more time for the cultivation of the useful, which all of us feel the need of.

5. It would shorten all printed and written matter to the extent of perhaps seventeen per cent., thus cheapening all our literature from the newspaper to the encyclopædia by one-sixth. Every six dollar price would be reduced to five.

6. It would make the written words the everlasting records of the changes taking place in the language, and thus give philology a chance in the future which has to a great extent been lost forever by the false and mischievous conceit of the past.

7. It would tend to make dialects and provincial accent disappear, and to facilitate the growth of a uniform pronunciation, since analogy would not be misleading as at present.

8. It would enable foreigners to learn the English language with infinitely more ease; and with its present potentiality for telegraphic and commercial correspondence over all the world, would rapidly tend to make English the universal language.

9. It would be a great advantage to all English missionary enterprises.

10. In a word: This reform would tend to make school life more happy and moral, school work more useful and extensive, literary products and efforts less expensive, and therefore general learning more advanced and profound. And in the great rivalry of European and Asiatic powers, which is becoming keener and keener from year to year, it would give the English races the critical preponderance, as admitted by Grimm, which would determine the ultimate universality of their language, as well as in their supremacy in commerce, adventure, and arms.

Next I may be asked: "Why have we not this spelling reform already, when its advantages are so great, and the array of names in its favor so authoritative?" I would answer: For more than one reason. It has not been brought to the notice of our people. Even our representatives and government officials, in the great majority of cases, have never yet happened to think of it. But the special difficulty is general agreement upon the most practical scheme of reform. Some are extremely radical, wanting no change until a complete phonetic one may be made, which can embrace all languages. Others, simply radical, will accept nothing less than a perfect phonetic system for English, which they would form by retaining all the useful letters at present used, and making new letters for the remaining sounds. And still others who will grant nothing more than the omission of silent letters.

This is another illustration of the necessity of making an effort to secure an authoritative deliverance which shall command the assent of at least a decided majority. The essential value of the reasons determining the conviction of the majority will undoubtedly in the long run determine the final acquiescence of all. Is not the joint authority of the "Philological Society of England" and of the "American Philological Association," greater in a matter of this kind, than a one-man dictionary which merely professes to re-utter the crude orthography uttered before?

#### WRITING.

And finally, when we spell phonetically why should we not write phonographically? Once on a time the artistic monks of the olden times in the leisure of their monasteries could make each letter a work of art. But now as the world is living faster, time is felt to be so necessary that the shortest method is worth more money as compared with the longer methods. Why should we continue to represent a sound by a drawing containing perhaps two or three straight lines and curves when the same might just as legibly be made by a single curve or dash? Why should not a legible system of short hand be the one taught in the Public School from the first grade upward? The pupil could do his written exercises at home in at least one-third of the time it takes him at present, so that there would not be so imperative a temptation for him to spoil his writing as exists at present. Who does not know that the writing of a schoolboy varies in beauty inversely as the amount of writing he has to do, and that by the time he gets through College even an Assyriologist may be incompetent to decipher his hieroglyphics? A very legible short hand can be written in one-third of the

time taken to write the same in the ordinary long hand. When leaving the elementary school every pupil would be able to do three times the amount of writing in one hour under such circumstances than he can do at present. Some would be able to report slow speech verbatim. This power would thus become the inheritance of all passing through the elementary schools, and it would do more for literature ultimately than all our present forces combined, as well reduce written language nearly to the same degree of convenience as speech. And yet the school would have no new burdens added to them. In fact the burdens would be reduced by the amount of time saved as well as by the amount of material (pencil, ink, and paper) saved. Now, should any one learn short hand, he will find it useless for purposes of correspondence, and as a consequence its practice is discontinued, and the art may be lost even after the expense of acquiring it. Then, even without school training, people would fall into the short system, because it is essentially more simple than the long system. And only just think how pleasant a prospect it would open to him who could afford to do as much correspondence with one clerk as he can now do with a staff of three or four!

But what system shall we adopt? There is the rub. This matter must be decided for the non-technical educators who are not in a position to settle the matter by experiment. Even if the most of them did attempt to solve that problem by experiment alone, they would be only rendering themselves incapable of fairly investigating any other system than the one first tried. It will not do to start one system in one province, another in another province, and so on. That means civil war in stenography, with all the loss to the general public which the struggle for the survival of the fittest involves. Evolution in the future is going to do business on improved principles as compared with the past. It will prevent, under the reign of science, the reproduction of the unfit, and so save all the loss of energy involved first in the rearing of the unfit, and secondly, in the destruction of the unfit. So that under the guidance of the higher reason of man, evolutionary change may be hurried on with tenfold the old rapidity, and with an hundredfold less cost to existing organisms. If these abbreviated phonetic characters could also with but little deviation from the written forms, be capable of being set up in ordinary type for the printer, the discovery would be a far greater one for literature and society, than the fabled feat of the Theban Cadmus.

This then brings me to the summation of all I have particularly to say. To enable our educational system to advance rapidly, and at the



at the same time with the minimum disturbance of, or cost to, present society, we must organize, and from the history of the past lay down lines which will produce the conditions we seek without antagonizing unnecessarily any element of our present constitution. This can be done. Should any one doubt it, even he need not say that we should not take the possibility of improvement into consideration.

I then simply propose at present, that we should appoint a Standing Committee of this Association, to confer with similar Committees from co-ordinate bodies of educators in all other English speaking countries, and that at least these three subjects be relegated to them to commence with: 1. The universal use of the decimal weights and measures; 2. The simplification of English orthography; and 3. The general introduction of a distinctly legible phonetic short hand.

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