

**ONE ALPHABET FOR
ALL INDIA**

Rev. G. U. Pope

1859

One Alphabet

FOR

ALL INDIA

A FEW WORDS

To all interested in the Welfare of our Indian fellow-subjects.
with Appendices, and a Comparative Table of the Alphabets of the
South Indian Languages,

BY THE

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"That they all may be ONE."

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1859.

ONE ALPHABET FOR ALL INDIA.

THERE has been for many years a growing conviction among those whose studies have been connected with the Indian languages and literature, that it is quite possible and in the highest degree desirable, to agree upon some one character in which all the dialects in use in India may be expressed.

The various eminent men who, in different parts of the world, have considered this subject, have agreed that the only alphabet which with advantage can take the place of those now in use, is the Roman. This alphabet has been found to be capable of expressing, with the aid of a few simple diacritical marks, every sound in all the Indian languages, while it is by far the most convenient in existence for printing, and is the character employed by all the dominant races of the world.

The object of the writer of these pages is to invite the *attention* of those who are laboring to promote the interests of the tribes of South India to this subject; to give a brief account of what has been done in other places with a view to the substitution of the Roman letters for the uncouth and inconvenient characters now in use; and to show that the application of the same system to the languages of South India is both desirable and feasible.

The writer had the opportunity of proposing this subject, which had long occupied his thoughts, to the consideration of the Conference of Missionaries assembled last year in Ootacamund, and, though the opinion of the majority of

that meeting was adverse to the system, he has reason to know that almost every one who has since that time given his attention to the subject, has become convinced that the objections to it are really destitute of force, and that nothing more is required to carry it out successfully than the hearty concurrence of the comparatively few persons in whose hands the education of the country and the direction, if not the formation, of its infant literature is providentially placed.

{The proposal to apply the Roman letters to the languages of India on an extensive scale was first made in the year 1834 by a few earnest men in Calcutta. The idea originated with Sir Charles Trevelyan, and was warmly advocated by the Rev. Dr. Yates, the Rev. W. H. Pearce, the Rev. Dr. Duff and some others.

The success of their endeavours with regard to the Hindustâni and Hindî languages has been complete (See Appendix A); while the system has not made any great progress in Bengali, simply from the fact, as it appears, that those whose co-operation alone could have rendered it successful have held aloof. The system thus inaugurated has been making silent but certain progress from that time to the present. In 1854 an international Conference was held in London at the residence of the Chevalier Bunsen for the purpose of settling a Universal Missionary Alphabet. A paper was submitted to that Conference by Professor Max. Müller, and another has been published by Professor Lepsius. Though there is some difference in detail between the plans proposed by those learned men, the principle that the dialects in use in India can and ought to be written in the Roman character seems to have been fully admitted by all who assisted at that Conference.

In regard to the adoption of this system in South India, two things have to be considered, its *desireableness* and its *practicability*.

Ī. The desirableness of this substitution of the Roman character for those in which the Tamil, Telugu, Canarese and Malayâlam languages are now written scarcely, admits of a doubt. The following considerations will, it is hoped, put this in a clear light to those who have not previously considered the subject.

First. *The Tamil Alphabet, at least, fails adequately to express the words in use in that language.* The letter ṣ has no less than five sounds. The palatal t can only be expressed by a doubler r , and the 'cerebral' t by doubling the d of the same class. It has but one character, for p , ph , b and bh ; as also for k , kh , g , gh ; and for s , ch , chh , j and gh . It has no sibilant and no aspirate. In order, therefore, to express many Sanscrit words, the use of which is universal and indispensable, it is compelled to write them in a disguised and emasculated form, entirely at variance with their real pronunciation. (Comp. my Tamil Hand-book, Introduction, § II.) The present distinction between the characters expressing several of the short and long vowels is a recent and unauthorized introduction; and in Malayâlam e and \hat{e} are still expressed by one character; as are o and \hat{o} , to the great confusion of the student. In Tamil, the harsher and stronger sounds of the Sanscrit are softened, so as to become adapted to the organs of the Tamilian race; but as the same words are used in their unaltered form in the cognate languages of the South, and as intercourse between these races is continually increasing, the Tamilians have learnt to a great extent, and are daily learning more and more, to give to Sanscrit words their true pronunciation. This change is a beneficial one, adding both to the force and the precision of the language. Hence the Tamil alphabet is now entirely inadequate for the unambiguous expression of the sounds of the spoken languages and new letters are introduced into it from the old Grantham alphabet, in which Sanscrit is written in the South. It may therefore be confidently asserted that a well

arranged plan for the expression of the Tamil language in the Roman characters would greatly tend to promote the accuracy, force and elegance of its pronunciation. To some extent this holds good of the Malayâlam. It may be freely admitted, however, that the Telugu-Canarese alphabet, which is simply the Dêvanâgari, is fully adequate to the expression of all the sounds of those languages. I have not given examples to illustrate what I have here stated; but, if the correctness of my statement should be questioned, it will be easy to do so.

Secondly. Another proof of the desirableness of the change herein advocated is found in *the greater facilities which will be thus afforded to Europeans learning these languages*. No one who has studied the languages of the continent can have failed to feel how much the identity of characters has facilitated his studies. While on the one hand there can be no doubt that entire accuracy in the pronunciation of any language can only be acquired by the use of the language in the midst of the people, it is also certain that with the aid of a very few phonetic rules, a European may read with facility and very considerable precision the South Indian languages when expressed in the Roman character. It is undoubtedly true that exceedingly few foreigners ever acquire the pronunciation of the Tamil, but there can be little doubt that this is in a great degree owing to the imperfection of its alphabet. Apart from this, there can be no doubt that many ladies and persons not possessed of any special aptitude for the study of language are deterred by the great difficulty which lies on the very threshold in the number and complexity of the characters, a familiarity with which has to be gained before the study of the language can be commenced. Let it be granted that this difficulty is really not so great as it seems, still we have to do with the fact that many are thus deterred from what would otherwise be a comparatively easy matter. A working acquaintance with any of the Drâvidian alphabets

is not easily gained. Ladies who have learnt French, Italian and German start back affrighted from the 216 letters (!) of the Tamil alphabet, the easiest, by the way, of all the oriental alphabets.

If no new character had to be learnt, most ladies would find it extremely easy, this preliminary difficulty being got rid of, to learn so much of the vernacular as to enable them to read with and otherwise aid in the improvement of their native servants. It is strange but true that multitudes of our fellow country-men and country-women spend the greater part of their lives in constant intercourse with natives without acquiring the ability to read or speak a word of their language. This ought not to be so. Few things would tend more to reconcile English people to their lot in India, to conciliate for them the esteem and affection of their native fellow subjects, and to remove that intense mutual feeling of alienation which unhappily too often exists, than the general study by all who sojourn in the land of the language of the district in which they dwell.

We advocate then this system because *more than any one thing that can be named, it would facilitate the study of the native languages.* Nor would this advantage be entirely confined to foreigners. Natives themselves would learn to read their own languages written in the Roman character with much greater ease and certainty than on the present system. Those only who have had to teach native children their own alphabets can conceive how difficult it is for them to acquire the art of reading. Though young native children are generally quicker than European children, yet, while the latter master their alphabet in a few days, with the former it is for the most part the weary labour of months, and a really fluent reader among natives is exceedingly rare.

Again if the four Drâvidian languages were written in one character, on a uniform system, it would be possible for

any person who had acquired one of them to learn to read intelligently the others, and to acquire a knowledge of their peculiar forms in a very short space of time. The impulse that would thus be given to philological studies and the greater facility afforded to the philanthropic labours of Missionaries, Schoolmasters and others is incalculable.

If this system be adopted, a Missionary going from one district to another will be able at once to read the Scriptures and the Prayers in the language of the people, and, since all the dialects of India have an immense substratum of common vocables, to understand much of what he reads. To those whose duties extend over several provinces (Bishops, Government Officers, &c.,) and to those engaged in translations into the native languages, the advantage of this would be unspeakably great. It would be to philology what the railway is to locomotion.

Third. It may safely be affirmed that *the native characters are entirely unfit for printing*. In some cases (as in the Telugu-Canarese alphabet) letters are written over one another, thus wasting much space in the printed page. The number of separate characters required for printing in any of the native characters is immensely larger than that required for the Roman. Again, the native alphabets hardly admit of the use of capital letters, italics and those other subsidiary means by which distinctness in typography is attained. No one, however familiar with the native languages can pretend to be able to gather any idea of the subject of a page of the printed character by running the eye over it, as can easily be done with the Roman. In this matter of distinctness and legibility the Roman character is acknowledged by all to be incomparably superior to every other. By its capitals it provides for the distinguishing of all names of places or persons. In native works, however, no notice is given to the eye of the difference between proper and com-

mon nouns, and thus the attainment of an accurate and ready style of reading is well nigh impossible. A page of a Vernacular book is like one of the Tinnevely *têris*, or sand plains, a dreary monotonous pathless waste. This is especially felt in translations of the Holy Scriptures, where it is of the last importance that sacred names and the names of places, strange to native ears, should stand out apart from the other words of the sentence, as in English they are made to do by the aid of capitals. For want of this, the writer has heard some strange attempts to read a chapter, where proper names were of frequent occurrence, in a native church. And again, how necessary is the use of italics in translations of the Holy Scriptures to distinguish words not in the original, but the insertion of which is rendered necessary by the idioms of the languages into which they are rendered. The absence in native works of all these expressive marks, by which precision and distinctness are attained in works printed in the Roman character, is of itself reason sufficient for the change now proposed.

Again, the space occupied by the native character as compared with the capability of compression possessed by the Roman character is a consideration of very great importance.

The Tamil Bible is in four thick volumes, and it is utterly out of the question to attempt to get a pocket edition, or even a tolerably handy one, of the Holy Scriptures in any of the South Indian languages while the present characters are retained. *The introduction of the Roman characters would enable the printer to issue from one and the same Press, with the same fount of letters, editions of the Holy Scriptures of every size in all the languages in use in the Presidency.* The saving that would hereby be effected both of labor and money is immense, and the native Christian, instead of taking with him to Church well nigh a kûli-load of books, would have as neat and portable a Bible, Hymn book, and Prayer book as we have in our own languages.

The greatest credit is due to the very able and energetic men, who (like Mr. Hunt in Madras) have laboured to improve the native typography; but while they have done all that could be done, the difficulty yet remains.

Fourthly. *The Vernacular alphabets of South India are adapted for writing on palm leaves with a style* (as the Persian is for being written with a reed), *but they are not adapted for writing on paper with a pen.* They have in fact no running or joined hand. Law papers are indeed written by the court and cutcherry writers in a kind of running hand. This is, however, so notoriously illegible, that, generally speaking, no one but a court writer can read what a court writer has written.

Now the Roman character is in this respect incomparably superior to every other. Its written character differs but little from the printed, is capable of being formed with the utmost rapidity and facility, and at the same time with the greatest precision and distinctness.

Fifthly. The change now advocated is in the highest degree desirable on account of *the impulse which it must give to the study of English, as well as to the more accurate study of the Vernaculars.* Should this system prevail, a native boy will have but one alphabet to learn; his native and English studies will cease to appear to him antagonistic, the one to the other, as they too often do now; the Vernacular will be a little elevated in his eyes by being expressed in the English character, and the habits of comparison and analysis will be greatly fostered. | And more than this, the change of alphabets will prepare the way for the more rapid infusion into the native languages of those European influences which sooner or later must affect them to an inconceivably great extent. It may be assumed that the vast majority of natives will be confined to the use of two languages, their Vernacular dialect and the English. They cannot thoroughly

master more than two languages. They require their own for the daily purposes of life; while through the medium of the English they must gain the greater part of their knowledge of science and literature. English must be the language in which all education of a high order is given, and from English sources, and subject to English influences only can the Vernacular literature of India receive new life and energy. The vigorous, but somewhat fanciful, trees of the Drâvidian dialects will continue to grow, and who shall dare to think of uprooting them; but buds from the sturdier English oak must be inserted. It certainly seems, at first sight, more natural that the Vernaculars of South India should continue to draw from the inexhaustible sources of Sanscrit literature; but this is rendered by the force of circumstances impossible. Comparative philology shows us that English is the descendant, a little further removed, of the same parent as the Sanscrit. It is, therefore, truly not much less natural that these languages should draw from the English than from the Sanscrit itself. That wonderful and providential course of events which has placed India under English rule, has placed the Vernaculars of India under the paramount influence of the English language. Henceforward, as the Hindû youth receives accessions of ideas from English sources, so will he, of necessity, receive those words which are the expressions of English ideas, and those idioms which are the foot-prints of English habits of thought. In proportion as the English do their duty by the races entrusted to them, will the Vernaculars of India become affiliated to the English. *They must one and all be adopted into the Anglo-Saxon family of languages.* Philologists will, of course, wince a little at this. It may seem anomalous, but it is only one, and not the greatest, among the strange results of English domination in India. Our round hats and black coats look strange among the turban hosts of India; but here we are, and here we are likely to remain,

and every year will see more of us in every corner of the land. So English terms look strange and at first sound uncouth in Vernacular works; but if we introduce ideas foreign to Hindû methods of thought, it is comparatively a small thing to introduce with them English words and idioms.

There was a great jostling of words and sounds when Norman-French began to mingle with the Saxon, and it required ages of shaking together of its discordant elements before the magnificent English language arose. It took a long time before the Romaunt languages took their present forms. The varieties of the Keltic too have struggled hard to retain their place, slowly yielding everywhere to the necessities of advancing civilization.

The idea may seem chimerical, but I cannot help regarding one alphabet for all South India as being in fact a step towards one language for all South India. The South Indian dialects are the children of one mother; they wonderfully resemble one another, though this resemblance has been disguised by the diversity of their characters; they are in idiom almost identical; they have taken nearly all their most expressive and useful words from the same source, the Sanscrit; and if hereafter they are all expressed in one character, and moulded, as of necessity they must be, by the same Anglican influences, they must converge rapidly. Of the Malayâlam and Tamil this is especially true, as the former is but a dialect of the latter, and is already being encroached upon by its stronger neighbor. Railroads, Electric Telegraphs, a uniform system of government, the same English class books and course of studies, with the same alphabetical system cannot fail to bring nearer and nearer to one another the scattered members of the great family of Drâvidians or Nishâdas, or Mlêchas, or by whatever other name those races may be called who inhabit the Southern part of the peninsula. If then the introduction of the Roman charac-

ter be one step, however small, towards this most wished for consummation—one step from Babel towards Pentecost—its desirableness will hardly be questioned. This system will break down one more of the barriers which keep the races of men apart; it will remove one more hindrance in the way of advancing civilization.

Sixthly. Some well arranged and comprehensive system for the expression of the Vernaculars in the Roman character is rendered absolutely necessary by many concurring circumstances. Indian names and terms are now familiarly used in English books, while the strange variety of ways in which they are written gives rise to endless perplexities. Thus works like Professor Wilson's Glossary, and Professor Eastwick's Hand-books, which are being published, assume some such system as that we advocate. Whatever differences of opinion may exist in regard to the extent to which these systems can be applied, the systems themselves are an immediate and urgent necessity of the day.

Again, the Electric Telegraph can only be made available to the natives of India by the adoption of some such system as here proposed. When a standard alphabet is agreed upon, the Electric Telegraph department will doubtless make arrangements for the transmission of messages written according to that alphabet, whatever may be their language. There are difficulties, doubtless, in the way of telegraphing a message not understood by the signaller, but these must ere long be overcome: and, at all events, the expression of all native messages in the Roman character, on a uniform and authoritative system, is the first and most essential preliminary to the enabling our native fellow subjects to make use of one of the greatest benefits which modern science has conferred upon mankind.

The plan we are advocating *will greatly tend to facilitate the administration of justice in the land.* It is a fact admit-

ting of no dispute, that the English rulers of India, with the utmost desire to administer justice, to be "a terror to evil-doers, and a praise to those that do well," have, on the whole, in many places failed to gain the suffrages of the people in this respect. If there is one thing more than another that renders our rule unpopular, where it is so, it is the working of our courts of law and justice. The native subordinates are able, in many cases, to frustrate the most earnest endeavours of the European officer to do justice. This doubtless arises in a very great measure from the want of a ready and practical acquaintance with the native languages on the part of the European officers. And even where the language is thoroughly understood and familiarly used, it is impossible for any one by glancing over any paper written in the native character to gain any idea of its import. This arises necessarily from the nature of the characters employed. It has already been stated that *arzis* written by a court *amlah* cannot be read by any except one of that fraternity. These persons thus become a powerful and exclusive body, having, to a great extent, the European head of the department in their power. Should he wish himself to peruse any document, however essential to a case before him, he is, for the most part, utterly unable to do so; since the character is such, that, in order to get any idea of its meaning, he must read it through; and in order to be able to do this, he must, in fact, learn a new and exceedingly complicated and arbitrary character. He must, therefore, make himself acquainted with the purport of such a document, either through the medium of a reader, or a translator. Thus the whole court is in the power of the *Jawábnavis* and the *Amlah*. Were it, however, fully explained that any documents of special importance to a case might be written and filed in the Roman character, and that by these means they would be, to a great extent, taken out of the hands of the native officials, there can be no doubt that this would be hailed as a boon by the natives of the country, and be a

great relief to the judge, who is now oppressed with the consciousness of inability to remedy the evils of which he is conscious.

It is impossible to enter fully, within the limits of a pamphlet, into all the arguments by which the plan I advocate can be proved to be desirable, and here I shall therefore leave this part of the subject.

I have endeavoured to shew that,

I. The use of the Roman character would tend to the more precise and accurate expression of many of the Indian dialects.

II. It would facilitate the acquisition of the Eastern languages by Europeans, and even aid natives greatly in mastering their own language.

III. It would provide a distinct, compressed and economical type for printing; thus vastly extending the benefits of the native press.

IV. It would give us, what we have not now, a cursive, or written character for these languages.

V. It would give a great impulse to the study of English, and of the Vernaculars themselves by natives, and would aid mightily in quickening and strengthening the Vernaculars.

VI. It is rendered necessary by the increasing interest felt in every part of Europe in Oriental matters, by the existence of the Electric Telegraph and by the circumstances of our courts of law and justice.

I ask every one interested in the well-being and progress of India to weigh well the cumulative force of these arguments.

From the advantages of the system, I proceed to the consideration of its *practicability*; for if the system cannot be carried out, it is in vain to tantalize ourselves by speculations regarding its advantages. In fact, in talking with

others on the subject, I have generally found them quite willing to admit the theoretical advantages, but thoroughly convinced of the *impracticability* of the proposed change. With these the opinion of Sir William Jones should have weight. He says, "*By the help of the diacritical marks used by the French, with a few of those adopted in our treatises on fluxions, we may apply our present alphabet so happily to the notation of all Asiatic languages, as to equal the Dêvanâgari itself in precision and clearness; and so regularly, that any one, who knew the original letters, might rapidly and unerringly transpose into them all the proper names, appellatives, or cited passages, occurring in tracts of Asiatic literature.*"

Impracticable! If those who doubt its practicability would only determine to make it practicable, the matter would be accomplished. The whole subject, as far as the languages of South India are concerned, is in the hands of less than 150 men in the Madras Presidency, of whom I know that a majority are in its favor. [Appendix B.]

If it be said that under the new system, the Englishman will carry his pronunciation of English letters into the Vernaculars, it may be replied that many do so now. Nearly every one forms some system by which certain native letters are represented by certain English letters. There is a natural inflexibility in our organs of speech perhaps, and an impatience of minute details, while good and conscientious Munshis are scarce. So that comparatively few, as it is, acquire a correct pronunciation of these languages.

The new system promises to remedy this to a great extent. When no new signs have to be learnt, the attention will be more steadily directed to the sounds.

But let us examine the principal reasons which are supposed to render the substitution of the Roman characters impossible.

The *first* of these is that *the true pronunciation of these languages would be lost if they were expressed in characters so foreign to them as the Roman*. But it is difficult to see why this should be the case. The sounds of these languages have been fully analyzed and classified. They are in the main those of the Sanscrit. The Tamil vowels, which are twelve in number, consist of five short vowels (a, e, i, o, u,) with their corresponding long vowels (â, ê, î, ô, û,) and two diphthongs (âi, and âu). The representation of these sounds by the Roman vowels according to the German, or Italian notation can occasion no ambiguity. There are special rules (in the Drâvidian languages, these are remarkably few,) which have to be studied at the outset, whatever characters are employed. These rules must be found in every grammar of these languages, whatever character may be used. The signs by which the sound of a language are made visible to the eye are not of the essence of the language.

The South Indian dialects existed long before their general characters were devised by Arian strangers for their expression. The Drâvidian alphabets of 500 years ago differ from the present as much as any of them differ from the Roman.

English and German have not suffered by the remarkable changes which their letters almost within our own time have undergone.

With regard to all those consonants which the Drâvidian languages have in common with the Sanscrit, it is admitted that they can be adequately expressed by Roman characters, according to the system which originated with Sir William Jones, and has been perfected by the labors of a succession of eminent Orientalists both in India and in Europe. The other consonants, which are less than six in number, can be represented in strict analogy with that system. A definite power is assigned to every letter in the Anglo-Indian alphabet. In any case, long intercourse with

natives is essentially necessary to a correct pronunciation. The various languages of Europe, which differ widely in their phonetic system, are expressed by the same character and the grammars of those languages are consulted for the regulation of their pronunciation. Why should not the same be done with reference to the South-Indian languages? We are not in the habit of attributing the difficulty felt by an Englishman in acquiring the pronunciation of French to the fact that it is written in the Roman character. In studying any new language, the student must learn to distinguish between the uses he has been accustomed to make of the letters, and the new uses to which he is now obliged to put them.

But, in fact, these languages are not so different, neither in their sounds or structure, from the languages of Teutonic and Keltic origin as is generally supposed. Certain it is, that the Drâvidian roots, with scarcely an exception, are identical with others which are found to exist in the Teutonic and Keltic languages. But however this may be, (and I trust some time or other to return to the subject;) the characters by which these languages are represented, and the Roman characters had, I am fully persuaded, a common origin. This will not appear strange to those who realise the fact, that those who spoke the language which was the common parent of the Latin, Greek, Sanscrit, Gothic and Keltic languages, were once one family, members of which most probably took with them the written characters of the parent language, to their distant homes across the Himâlayas, and beyond the Caucasus. The South Indian alphabets are but modifications of the older forms of the Dêvanâgari, as is the Roman alphabet itself. I should hardly have ventured to dwell upon this, had it not occurred to both Dr. Caldwell and to myself while engaged, unknown to one another, in the very same task, viz., that of examining old Tamil alphabets with a view to improvements in Tamil typography. Were it possible

to present to my readers facsimiles of some of the older Tamil alphabets, it would at once be seen that, *in proportion to their age, their resemblance to the older forms of the Roman character increases, while many of the letters are absolutely identical.* When then we substitute the Roman characters for those now in use in South India, we merely take those modifications of the same original characters, which, by long use among the most civilized nations of the world, have been rendered the most distinct and convenient, in place of ruder and more complicated forms.

Strange indeed has been the destiny of those letters, which, first formed, it may be, on the table lands of Central Asia, were carried into the furthest regions of Europe, modified and perfected in the little district of Latium, and thence in due time emerged, seem now destined to be written and read by the inhabitants of every land!

But it is objected again that the system is impracticable, because *it must be regarded by natives with distrust as a foreign innovation.* Now if this were a system to be introduced at once and by authority, it might be met by a passive resistance on the part of the people which would affectually thwart the efforts of those who attempted the substitution; but since it is clearly one of the greatest boons which can be conferred upon our Hindû fellow-subjects and is capable of being presented to them in this light; and since all that we aim at is to place the adoption of the Roman characters optionally before all classes of the community, not withdrawing any one book in the native character from circulation, nor publishing any one book for circulation at present among the natives in the Roman character only, it is hard to see how any class of persons can imagine themselves aggrieved by the attempt to gain, for what claims to be a vastly improved system, a fair trial. The natives of South India are sensitive in regard to interference with their religion; but they are far from being averse to imitate Europeans in other

matters. The Tamilians especially are a shrewd and intelligent people, little disposed to permit any thing to interfere with the promotion of their material interests. From them I expect not even the shadow of opposition.

The following are the principal means by which I would urge that the trial should be made.

1. Let the elementary books published in all the languages of Southern India under the superintendence of the Director of Public Instruction, and by the two school-book societies, be issued with the native character on one page and the Roman character on the other, measures being taken to publish the books so prepared without any increase of cost.

2. In all Normal Schools, let the students be carefully taught to use both characters, the advantages of the new system being fully explained to them.

3. In all schools let the masters be requested to teach their pupils both characters, preference being given in all examinations to those pupils who, *cæteris paribus*, are able freely to use the Roman character.

4. Permission might be given to all persons to present *arzis*, and file official documents in general, optionally in the Roman character, and to public officers to keep the vernacular records of their departments in it.

5. To facilitate this, a sheet showing the Roman equivalents for the native characters, should be widely circulated, and put up in all public offices, schools, and places of public resort. This table (I append one, Appendix C, which I hope will be found to answer the purpose) must of course receive the assent of competent scholars before its final issue.

6. Let there be published in Tamil (and subsequently in Telugu, Canarese, and Malayâlam) short and easy primers,

for the use of foreigners learning the language; in which ~~this~~ system shall be adopted. Professor Monier Williams has ~~ready~~ done this in a very elegant and scholar-like manner by Hindûstânî.

7. It is hoped that the Madras Auxiliary Bible Society may be induced to aid in trying this great experiment by causing all tentative editions of the Holy Scriptures printed for circulation only among Missionaries and other revisers, to be issued in the Roman character. This will afford those most concerned an opportunity of testing the system before committing themselves to the transliteration of any portion of the Holy Scriptures for circulation among the natives.

8. An edition of our Lord's Sermon on the Mount in Tamil, Telugu, Canarese and Malayâlam in parallel columns, all expressed in the Roman characters, is in course of preparation. To this will be appended a comparative glossary and tables, shewing the inflectional systems of these sister dialects. It is hoped that this work will tend to show how useful the system now advocated may be in promoting philological researches.

Doubtless, other steps will be taken in due time. In this way when the experiment is fully and fairly tried, the system shall commend itself to the minds of thoughtful and practical men, it will soon make its way;—if not, if it were possible that the system should fail to win its way, the mere endeavour to carry out such a great and comprehensive plan will not be without its advantages. At any rate, it can hardly be urged that the measures here proposed will carry with them the appearance of an attempt to introduce a sweeping innovation without the concurrence of those most concerned. My belief is, that the system thus presented to the native mind contains in itself the elements of great and lasting popularity. We all know how eager the native children taught in our schools are to learn English, how eagerly all classes seek for English books. We

all know too, how difficult it is to induce natives to learn to read and write their own languages. It has been my lot to conduct examinations in the Vernaculars of the South under almost every variety of circumstances. I have examined youths from all parts of the country, and of every grade, from the candidate for University honours, to the ragged disciple in the lowest classes of the village schools. And I unhesitatingly declare that of all studies *the study of the Vernaculars is the least popular among native youths, and the ability to write plain grammatical prose in their own language is of all acquirements the most rare.*

In fact, in spite of all the efforts that have been made, the study of the Vernaculars is not increasing. I think that when the native languages are written in the English character, they will be studied with far more interest by native youth than they are now. I believe that few things would more tend to quicken into new life the almost dying Vernaculars than the change now proposed. If, however, the few native scholars that yet exist should still object to the system we may fairly ask them what they or their predecessors for generations have done for the native languages? The languages of South India have literally no prose literature, nor is there any poetical literature worth speaking of written in the *modern* Drâvidian languages. The Tamil has some really good ethical poetry, a few hundred verses of great sweetness, and of a certain quaint beauty of expression, a few curious and interesting relics of obsolete systems, most interesting to the antiquary and to the ethnologist, a few epics, either translated or imitated from the Sanscrit, with some very able but unpractical grammatical works; but these are all written in the Tamil of a by-gone age, and are entirely unintelligible to 999 out of every 1,000 Tamilians. *The real literature then of the existing Tamil language (and a fortiori of the other Drâvidian languages) has yet to be created.* And its creators must be natives who have derived

their inspiration from English sources. If this be so, why should we not begin at the right end? All books worthy of being preserved, will soon be transliterated, and books written in the native characters will still be pondered over by the learned. The characters by which for a long series of years any language has been expressed, will always possess a deep interest for the Archæologist and the Antiquarian; and their present forms, like those of the older alphabets from which they have been modified through the course of ages, will afford scope for the ingenuity and research of the savans of future generations. But now, *they stop the way of civilization and progress, and they must give way to a system more in harmony with the requirements of the time.*

They cannot stand before the characters which have been proved to be of all others the soonest acquired, the most easily read, the most rapidly written, the most compact and uniform in structure, and the best adapted to business.

I will close these pages with a few remarks regarding the method for transliterating the Dravidian languages, which in communication with several persons possessed of learning and experience, and after consulting every thing written on the subject that lay within my reach, I have ventured to propose for adoption. I have carefully studied the systems of Professor Max Müller and Lepsius; but the conviction has forced itself on my mind, that neither of them, in its entirety, is likely to gain acceptance among those with whom practically the decision of the question must rest.

The learned men who have propounded systems for the expression of Oriental languages in the Roman characters, have enunciated certain general principles by which, in their opinion, all attempts of the kind should be guided. Of these, on the whole, those laid down by Professor Wilson in his glossary, seem the most convenient, although those who have

made the languages of South India their peculiar study, will probably differ from him, slightly in the application of those principles. The rules which I would recommend are the following:—

I. The same letter should be invariably used to represent the same letter or the same sound.

II. The same letter should never be used to express two different letters or sounds.

III. Simple letters should, as far as possible, be used for simple letters.

IV. Diacritical signs, lines, accents, or dots are to be attached to the Roman letters, in order to enable them to represent modifications of the symbols or sounds which they themselves express.

V. The vowels are to have the powers which they possess in Italian; the long and short vowel being held to be one and the same letter, the former being distinguished by a circumflex.

VI. Consonants of the same elementary sound, modified only by pronunciation, are to be expressed by one and the same symbol, distinguishing them as the equivalents of the original signs by dots or lines, as provided for in Rule IV.

VII. The aspirates of the original letters must be represented by a double letter; (i. e.,) by the corresponding unaspirated letter followed by an h.

In applying these rules to the South Indian languages, no difficulty can arise, as far as regards the vowels, except indeed in the Sanscrit vowel sounds *ri*, *rî*. These, which are of very rare occurrence, I would indicate by the two letters which are their equivalents, viz., *ri*, *rî*; indicating their original character when necessary by a line drawn under both, thus *ri*, *rî*; *li* and *lî* may be dealt with in the same manner, if ever they occur. Of the consonants *k*, *y*, *l*, *p*, *b*, *m* and *v* have precisely the same sound in the South Indian lan-

languages as in English. A few special rules regarding them are found in the various grammars, and must be for the most part retained in the new system.

In these languages, as in the Sanscrit, there is a number of letters which, having the same consonantal base as others with which we are familiar, are modified by the place where they are stopped, which is the hinder part of the palate. They are called "*cerebrals*." The letters *t*, *d*, (with their aspirates) *n*, *l*, and *r* are found in this class. They are indicated by their consonantal base, with a dot under. The advantages of this notation over that of most of the native alphabets is striking. By our system, the identity of the fundamental sounds, and the nature of their modification is made evident to the eye. In the Telugu-Canarese alphabet this is effected by a loop on the right side of some of the letters. In the current hand, these dots will probably become loops connected with the letter. The following rule then must be remembered:—*Every consonant with a dot under it must be pronounced by rolling the tongue back to the hinder part of the palate, and pronouncing the consonantal base strongly.*

DENTALS.

In the South Indian languages *t* and *n* as a general rule are dentals. Some special rules, however, must be borne in mind with regard to these letters.

1. In Tamil and Malayalam *t* when single, in the middle of a word, has the sound of *th* in *the*. This sound is not found in Sanscrit or in the other Drâvidian languages, where Sanscrit influences have been more felt than in Tamil.

As this rule is simple and universal, it is not necessary to represent this latter sound by any other sign.

In the beginning of a word *n* is dental, except in a few words in Tamil, and a considerable number in Malayâlim, where it is the nasal of the palatal class, and is sounded like

ny. For this I write ñ, from the Spanish.* When n is found before a guttural, or a palatal, it is the nasal of that class. In the former case it will have the sound of ng. N at the end of a word and before r is always palatal.

CH AND THE SIBILANTS.

The sound of *ch* in *church* is found in words derived from the Sanscrit, in which language it is represented by a single letter. Although the question is surrounded with difficulties, I think that, on the whole, this should be expressed by *ch*. There is however a letter in Tamil (ச) which is sounded like a dental *ch* pronounced very softly, for this I use Ç. This letter when doubled is pronounced like *ch*. In pure Telugu words nearly the same sound is found, but expressed by the *ch*. In this language *j* also undergoes modification and for this special rules are provided. There is a palatal *s* found in Sanscrit words which it has already been agreed to express by *ś*.

There remains but one letter to be considered, and that is the (ఝ) rough *r*, which is still used in the Tamil and Malayâlim, but has fallen into disuse in the Canarese and Telugu. As the simple *r* of these languages is softer than the English *r*, (somewhat like *re* in the French *Genre*), so this *r* is rougher and is pronounced at the roof of the mouth with a strong vibration. As it was originally written as double *r*, and as the simple *r* is never found doubled in any of these languages, I propose to express it by *rr*.

This *r* itself is sometimes doubled in Tamil and Malayâlim; but is then pronounced as a palatal *t* doubled, combined perhaps with something of the sound of *r*. This is anomalous, and I propose to express it thus tt, where the line under directs attention to the anomaly.

* After my plan was arranged, I found that Professor Max Müller had proposed the same sign.

The combination *nrr* (நர்) is of frequent occurrence in Tamil and its daughter Malayâlam. It is pronounced *ndr*.

With these explanations, the comparative table appended will be intelligible, and I trust provides fully for the expression of the South Indian languages in the Roman character.

If at the first glance, the dots and other diacritical signs should appear to present a difficulty, it must be borne in mind that *in this system fewer dots and marks are used than in any of the native alphabets*, the Tamil requiring every mute consonant to be dotted, and the Telugu and Canarese using a loop in the body of the letters to indicate a cerebral, thus: $\text{ṛ} = d$, $\text{ṣ} = d$, and an aspirate thus $\text{ṛ} = d$, $\text{ṣ} = dh$, &c. &c.

I can from my own experience assure my readers that a very little practice will enable them to write freely on this system, and to read fluently and correctly.

In conclusion, I entreat for this subject the candid consideration of all concerned.

We ask nothing but a fair field and no favour. Of its ultimate success I entertain no doubt; though there is a feeling in many minds of reluctance to enter upon the consideration of a plan which seems so “radical” in its tendencies. The *quieta non movere* system may retard the improvement we advocate; it cannot, if it be a real improvement, ultimately prevent its universal adoption.

The Roman character is used nearly throughout Europe, in every part of America, in Australasia, in every region of Africa where any light of European civilization has penetrated. The singularly cumbrous word—alphabet of China must give place to some rational system, and of course, the Roman character can alone be the substitute. In the case

of all languages hereafter to be reduced to writing, it will be used. It has nearly succeeded in displacing the Persian-Arabic letters in which Hindustâni has been written. By common consent it seems destined to displace the Dêvânâgari in Sanscrit works published in Europe.

What hinders it then from becoming the alphabet of the world ?

One thing only is needed (no easy thing truly) that earnest and practical men every where should divest themselves of all prejudices and prepossessions, and unite in a candid spirit to labour for the attainment of this magnificent object.

G. U. P.

OOTACAMUND, *May* 21, 1859.

APPENDIX A.

I HAVE THOUGHT THE FOLLOWING LETTER SO IMPORTANT, THAT I
GIVE IT WITHOUT ABRIDGMENT :

From the Rev. R. C. MATHER, to Sir CHARLES TREVELYAN,
on the Progress made in applying the Roman Letters to the
Languages of India up to the commencement of the great
Mutiny.

WATERLOO COTTAGE, TONBRIDGE,
January 16, 1858.

DEAR SIR CHARLES,

I was surprised but delighted to learn in the course of a conversation I had with Dr. Duff two years ago, when, having returned to India, he passed through Mirzapur on his way to Calcutta, that you continued to cherish all the interest in the Romanizing system which you had so signally displayed twenty-four years previously. At that time I was new to India ; but, shortly after making your acquaintance, I left Calcutta for Benares and Mirzapur, and commenced the study of the Hindusthání and Hindí languages, and have ever since been engaged in communicating, through those Vernaculars, both our religion and our science orally, and by publications from the Press, to the natives of the North-west Provinces. From the first I was highly impressed with the advantages connected with the general introduction of the Romanizing system of Sir William Jones, as modified by yourself and the Rev. Dr. Duff and Mr. Pearce, and have all along laboured to promote its diffusion.

I am happy to say that our labours have been crowned with a success which, at the beginning, we did not dare to anticipate. The Roman character has spread to that extent, that not only those who have learned English prefer to read the Vernaculars in it ; but, in addition, it is at the present time *the Christian character of the North-west Provinces*, since it is used by the great majority

both of our Missionaries and their converts. We have in it a body of general and religious literature of many volumes and of thousands of pages ; and the saleableness of works in that character is progressively increasing, and now far exceeds what it was even five years ago, and much more what it was at the commencement of our efforts. As an instance, I may say that we printed a revised and simplified edition of Miss Bird's Geography, as one of our first school-books. That edition consisted of only five hundred copies; but it took ten years to sell them at two shillings each. We have since printed a second edition; and within two years nearly all have been disposed of at the same price. To a person conversant only with the educational book-market at home, this will seem a very small result. It should be understood, however, that in the present state of the Indian mind, Geography is regarded not as a necessity, but a marvellous luxury; and that Miss Bird's work is only one out of several compilations used in our schools. So viewed, the fact is important, as showing progress of a sure character; for no native will buy what he does not believe is good and necessary for him. And here it will be well to add, that all our publications in the Roman character, of which I propose to give an account somewhat in detail, have been originated in the *bonâ fide* conviction that they would sell, and more than clear the outlay incurred in their preparation. This conviction, experience has shown to be well founded, as in the case of the Mirzapur printing-office, one important source of support has been the sale of Vernacular books printed in the Roman character.

A still more signal proof, however, of the hold the system now has on the minds of our Missionaries in the North-west Provinces of India, who, it should be remembered, form a body of 102 persons, is the resolution adopted at a Conference of Missionaries held at Benares in January of 1857, in respect to the continued use of the character. They say, "While thankful for what has been done towards providing a literature suited to the wants of native Christians and the Hindú and Mussulman population at large, the Conference at the same time feels the importance and need of using the utmost endeavours to enlarge and improve it.

The Conference is generally of opinion, that it is desirable to continue the use of the Roman character, more especially for native Christians ; but at present sees no reason for supplanting the native characters in general use." It should be noted that in this Conference thirty Missionaries and two Chaplains of the Honorable East India Company were associated, and, with one exception, all were unanimous in the support of the resolution.

On the day previous to the meeting of the Benares Conference, there were assembled in the same hall 150 native youths, Hindú, Mussulman, and Christian, who had come from all parts of the Benares division to stand an examination on the sacred Scriptures, with a view to obtain certain prizes of considerable value, which had been offered to those who should show the most extensive acquaintance with Scripture truth. On that occasion, a class of 152, 26 prizes were awarded, of the aggregate value of 21,252 rupees. Of the answers submitted in writing, 76 were written in Urdú-Persian ; 12 in Urdú-Roman ; 18 in the English language ; 46 in Hindí and Nagari. Respecting these comparative results, the Editor of the *Khair Khwáh-i-Hind* observes, "It is worthy of observation, that while the candidates using the English language were few compared with those using the Urdú and Hindí, they have carried off the majority of prizes. The competitors using the Urdú language, but writing the Roman character, come next in the order of success. The only explanation we can give of this remarkable fact is, that on them European teachers had bestowed a larger measure of attention, and that their minds had consequently been better trained. The Urdú and Hindí competitors have, perhaps, as a whole, given a larger measure of fact and quotation ; but in original composition, in independent thought indicative of an understanding of the subject, in grasp of mind, they have, as a class, been left far behind." You will be pleased to read this statement, as demonstrating what was long ago asserted as a probable result,—that the Roman character would be an important help in the communication and reception of knowledge in its clearest and most exact forms.

The system current amongst us is that which you originated

with two exceptions. Instead of expressing غ by gh, we express it by g ; also for the ع we write the vowel represented by it, with a comma before or after the letter ; but on the top of the line, instead of below it, as اَمَال we write *A'amál*. The system of Romanizing has been applied amongst us only to the Hindusthání as current in the North Western Provinces : or, if to the Hindí at all, only in the case of a Hindí Primer. The library of Urdú-Roman school books, originated by yourself and Messrs. Duff and Yates, formed the basis of the school and general library since issued from the Press. Before you left India, Henry Martyn's four Gospels and Acts had been printed in the Roman character by the Bible Society, at your suggestion and under your superintendence. Since then, two separate translations of the entire New Testament have been Romanized and printed. After these had seen the light, the whole Bible appeared in the Roman character, under the editorial care of the Rev. J. A. Shurman. This edition consisted of 3,000 copies, and has since been exhausted. A second edition of the Old Testament left the Press a short time ago, partly under the care of Mr. Shurman, and subsequently under my care. This, too, consists of 3,000 copies. The New Testament, uniform with the Old, is now being completed at Mirzapur under the care of the Rev. M. A. Sherringham.

Next to the Scriptures, in order of time, was commenced our native newspaper, the *Khair Khwáh-Hind*. This was started in September 1837 ; and, up to the time of the mutinous outbreaks of May last, has been regularly printed both in the Persian and Roman characters. The new series alone, commencing with the year 1845, forms a volume of 1,200 closely printed pages. This periodical is taken by all the missions in Northern India, and aims to be the organ of the native Christian community. It has often been suggested to us that it would be well to reprint large portions of the work, that continuity might be imparted to subjects which have been treated in sections written at different periods ; and a plan was submitted to the Agra government to reprint the natural history articles, with illustrations both woodcuts and lithographs ; and it was then estimated that the first volume on the *Mammalia* would extend to 500 duodecimo pages.

"The *Pilgrim's Progress*, abridged by the Rev. W. Bowley, next appeared in Urdú-Roman; then a volume of Hymns in Hindustaní by the same author was passed through the Press by yourself. Of this little work there have been two or three editions, and it is in universal use by our native Christians. After this came Miss Bird's Geography, simplified and enlarged by the Rev. Messrs. Mather and Glen, of the Mirzapur mission. What have subsequently appeared I will insert in a tabular form, arranging the publications not in keeping with the order of time, but similarity of subject, or the classes of persons for whose benefit they have been written.—[I have omitted this Table.]

The above list contains, I think, all the works that have been published in Urdú-Roman. Probably the matter would fill 900 to 12,000 duodecimo pages, were it all transferred to that form. This is a result which, were it now only a possibility in the future, instead of an actual fact, would seem to us very important.

Before closing this letter, I will suggest a most practicable mode of rendering the Romanizing system popular amongst all classes of the natives of India. It is only necessary that Government should announce its willingness to receive Petitions in the vernacular, but written in any character. The natives naturally wish that their petitions should be read, and their real meaning understood; and as they suppose that their English rulers understand their own characters best, they would of their own accord set their petitions written in those characters. How much good such an usage would accomplish in putting a check on the duplicity and frauds of the native officials, it is easy for any one who has been in India to understand. What an amazing benefit would result, also, were all the accounts of Government kept in the Roman character! The despatch of business would be immensely facilitated, and the perpetration of frauds would become proportionately difficult.

It has always seemed to me most unwise to permit the use of the Shikasta (Persian running-hand) in our law courts. Next to the benefits arising from the introduction of the Roman character.

would be the benefits that would result, were it made imperative that all legal documents should be executed by Khush Nawis (engrossing clerks) writing in the Nastálíq (answering to our round hand); or if in the Hindí language, in the well-made Dêvanâgari letters.

I am, &c.

(Signed) ROBERT COTTON MATHEI

Sir C. E. TREVELYAN, K.C.B.,

&c. &c. &c.

APPENDIX B.

WHILE this is a question that can never be settled by authority, it will save its advocates from the imputation of rashness if it be shewn that the most eminent men in every department connected with India have been in favour of the scheme now proposed. A few extracts from letters, and publications of several such men are subjoined.

I. SIR CHARLES TREVELYAN has been mentioned as the first advocate and firmest friend of the system from 1834 to the present time. From the many papers he has given the world on this subject, I select the following passage: "I have read with much interest the discussions which have lately taken place on the subject of the general application of the Roman character to the languages of India. The superiority of this character over the other alphabetical systems at present in use in the East, its cheapness, its distinctness, its capability of compression, which eminently fit it to be the organ of a national literature, seem now to be scarcely ever denied."

See.—"*Papers originally published at Calcutta in 1834 and 1836, on the application of the Roman letters to the languages of India; to which is added a letter from the Rev. R. C. Mather, Sir C. E. Trevelyan, showing the progress made up to the commencement of the great mutiny.*—London, Longmans 1858."

II. SIR JOHN LAWRENCE, in a letter recently received from

him, says : " I can see no practical objection to the measure. If the system was introduced into the schools and gradually into the courts in a few years, it would become the custom of the country. That seems to be wanting is for Government to approve and authorize the experiment."

III. MR. DONALD McLEOD, Commissioner. " I was myself opposed formerly to the scheme, but my opinions have changed with the course of events, and the arguments in favour of it now appear to me to have great force. Of its superiority for printing purposes, there cannot possibly be a doubt, so it is useless to urge any thing on this point in addition to what has already been said and proved ; and I believe also that for writing it is preferable to the Persian character, being more clear and certain, though I should doubt about its being so rapid as the latter as some seem to think. Mr. Morrison also states, and I believe correctly, that it is more rapidly and readily learned, which is no small matter.

The doubts I formerly entertained, were as to the possibility of introducing the character generally, but these have since been removed, I may say entirely. The very general supersession in some parts of Hindî by the Persian, is quite a case in point ; and this was effected by a Mahomedan Government which gave itself no concern whatever about the education of the people, it may I think certainly be much more completely and rapidly effected by us, through the vast net work of schools ; which we are now establishing and which promise ere long to enable us to penetrate into the very heart of the people. If the Roman character were introduced into all our schools, though for the present only in addition to the Vernacular ; if we declared that petitions were receivable in that (as a preparation for which it would be indispensable that all officials should be required to learn it,) character, it is my belief that it would rapidly gain a very fair footing ; and ere long secure a *preference* among the people themselves. It is impossible, no doubt, to introduce a new language amongst a people ; unless at all events a very long period be allowed ; but I do not think the same impossibility by any means applies to the introduction of a new character, especially when that character possesses great advantages in itself."

IV. The following interesting communication is from the Rev. J. H. MORRISON, one of the oldest Missionaries in the Punjab. "Were we about to reduce a language to writing, and prepare books in a language in which no books had ever been printed, the question would be greatly simplified. It would simply be, which of all known characters answers best all the objects of representing the language to the eye by writing and printing? On this point men might differ; but no doubt all would agree on the principle of adopting that which they supposed best adapted to answer the ends of writing and printing. And should an error of judgment lead astray the leaders in such a measure, experience would slowly but certainly correct the error. For example; all the characters in use in this country were originally adopted only for writing, and the Persian by its superior adaptedness for securing the ends, writing has been gradually though certainly supplanting all other. And it is only the stereotyped character of the people and the religious prejudices of the Hindûs that make the progress of improvement in this matter so slow. I suppose it is not so generally known that it is directly forbidden by the Hindû religion that Hindûs should learn any character besides the Dêvanâgarî. For writing, the Persian character is decidedly the best, but still it is only a written character never intended for and not adapted to printing. The question then would be something like the question whether we should print English books in our written or printed character. This may seem absurd at first sight, but it is not so absurd as to choose to print the Persian character rather than the Roman, for the former is destitute of many of the excellencies of our written character. Imagine a foreigner endeavoring to learn English from books written or lithographed in the various hands of the different writers, and you have the fact with reference to our learning the languages of this country from native books. For the first 2 or 3 years of my study of the languages of this country, it seemed to me as if I never should have done with my a. b. c's; for every new book I took up appeared to me as if written in a different character, and that too in the case of printed books. In reply to this, it may be said that all these characters may be and are printed. True, but with what results? Type printing in the

Persian character is from its inherent deficiencies being abandoned. It requires about 4 large 8vo. vols. for the Bible alone. Sir Charles has given a very good view of the immense font of type necessary. Nothing but a trial can give any one an idea of the trouble required to get a form corrected and fit to go to Press; and when started it needs a proof reader to be constantly on the watch to keep it correct on account of the bending and breaking of those parts of the type that have no support from the body of the letter. Some years ago, an edition of 10,000 of Pfander's Way of Life was printed at Loodiâna, and the Superintendent of the Press told me that he had to read the proof at least once a day, while it was going through the press at the rate of 500 impressions of each form. Thus, to get 8 pages printed, it had to be read and re-read 20 times after it had been corrected, and the printing commenced, and yet there is probably not a copy in the whole 10,000 in which no error from bending or breaking of types can be found. Now a man qualified for this work must be one of education enough to command a salary of 2 or 300 Rupees in any sphere but the Missionary work. Now think of supplying this people with Commentaries, Encyclopædias, &c., at this rate. Think of Scott's Commentary for instance, in from 20 to 25 large 4to. vols. and other books in proportion, and we have some idea of what those who adhere to the Persian character propose. But so difficult is it to get it printed, so as to be readable by the best native scholars that we are abandoning it and resorting to lithography. Others are resorting to the small character they call Arabic, but which is in fact neither Arabic nor Persian; a very few readers of either of those characters can read it without studying it. When thus introducing a new character, the wonder is they did not select that which was admitted to be the best. But even in this character-reduced to so small a size that few can read it, the Bible requires 3 large 8vo. vols. and so of the Dêvanâgari. Even in this latter character, which is much better adapted to printing than the Persian, the natives complain that our type is so small that they find difficulty in reading it. Whereas in the Roman character all these languages can be printed in all the varieties of English Bibles and at the same expense. Nor have any of these characters one quality that I know of superior to the Roman for

printing purposes. The native characters then stand as a mountain barrier in the way of the advancement of science, literature, and religion, so far as books are concerned. The adoption of the Roman character would at once cast that mountain into the depths of the sea.

This is what we meet on the threshold of this subject. Having passed the threshold, I do not know that I can give a view of the interior, better than by a brief history of my own convictions on the subject. I arrived in this country 21 years ago, shortly after the publication of the controversy on the subject. Of course I heard a great deal on the subject, but determined to have nothing to do with it. I was not long, however, in finding that I must act on one side or the other, and I determined to act intelligently. I accordingly read the discussion, and commenced making inquiries, observations and experiments to satisfy my own mind on the merits of the question at issue. The difficulty already alluded to of learning such a variety of hands could not be lost sight of. But while struggling to master those difficulties, and before I could read the native characters with any degree of accuracy, or speak much, I found I could read the Roman character, so that any native who understood the Urdú could understand me. I even subjected myself to the imputation of excessive modesty, if not of positive falsehood, by appearing to be unable to understand every thing they said to me or to speak fluently in language I could read with such perfect correctness. This experiment was highly satisfactory and very decisive.

Then in reference to teaching the natives, I one day entered a school where both characters were taught, and selected one of the largest boys for a trial. I asked him to read. He read off very fluently in Persian character when he was reading his lesson which he had read before, but could not read a line correctly beyond what he had studied. I tried the same experiment in the Roman character with the same boy. He read the lesson which he had studied as fluently as he had done the former, and when asked to read what he had never seen, he replied as before that he had not studied that and could not read it. I urged him to try it, as I had urged him to try the other. He did, and read it

off slowly but very correctly. I then asked, how long he had been studying each. The teacher replied, "he had been studying the Persian with me for three years, and for the last 25 days he has devoted a part of his time to the study of the Roman character." I then inquired of him and of other native teachers as to the comparative length of time required to enable boys generally to read these different characters, and the result was that for the Roman character about one-third less time was required than for the Persian, and one-fourth less time than for the Dêvanâgari.

Then as to the uses of a character, I suppose no one can contend that these are as fully attained by any native character as by the Roman. Let any one look into Shakespeare's Dictionary and he will see multitudes of words that can be pronounced in a variety of ways with a different meaning for each pronunciation. He may also see specimens of writing whole sentences, so that they may be read in different ways, each way being equally correct as regards the orthography. This uncertainty is entirely done away by the use of the Roman character according to the system adopted of late years. The systems, if they are entitled that name, adopted by Gilchrist and Thompson are very defective and contradictory. And for want of any system among foreigners generally, a perfect babel exists in the spelling of native names and words. Often in one newspaper you find the same place spelled in half a dozen different ways. Let this system be adopted, and just in proportion as it is carried out, is perfect accuracy and conformity in spelling and pronunciation secured. It is clear that for scientific, legal and religious purposes, greater accuracy and certainty is required than is attainable in the use of any of the native characters.

V. The subjoined extract from a letter of a Missionary and philologist of great learning and experience in this Presidency, the REV. DR. CALDWELL, will be read with interest. "With respect to the use of the Roman characters I think their introduction both desirable and feasible. Until lately, I regarded the project, like most other people, as an impracticable dream; but the experience I acquired, in the preparation of my compara-

tive Drâvidian Grammar in the rendering of words belonging to each of the South Indian languages in Roman characters for the sake of facilitating comparison, taught me to regard the use of these characters as much more feasible than people had supposed.

About a year ago I was led a step further. I was endeavouring, by means of a comparison of several of the more ancient Indian alphabets, to discover a set of letters which might be used as Tamil capitals, and the further I went back in my comparison, the more certain it appeared to me to be that Tamil and all the Indian characters had one and the same origin, and that the oldest form of the Indian characters was nearly identical with the oldest form of the Roman. 'If so,' I began to think, 'why stop half way in the search, when by going a little further, a great additional benefit might be secured?'

If we have to go back a thousand years for capitals that differ almost so much from the present Tamil characters as the Roman do, why not at once go back a thousand years more and introduce the oldest characters of all, and by far the best for universal use—the Roman characters themselves?

The chief difficulty I foresee is a practical one with respect to the use of our MS. hand or cursive character. Accents and diacritical points may succeed very well in printed books, but are they equally suitable for writing? If it were necessary for us in writing English to dot three times as many i's and stroke three times as many t's as at present, most people would be tempted to omit them systematically, and would not a similar necessity, in the event of the Roman character being used for writing Tamil be fatal to the legibility of Indian MS?

This appears to require careful consideration. There are also certain characters and conjunctions of characters which are peculiar to the Drâvidian languages, and which would have to be provided for, without trenching upon the arrangements made for the Sanscrit and other North Indian languages. The wants of *India* will have to be studied as a whole, in order that there may be but one system in use everywhere, and yet the peculiar wants

of each of these languages of the Northern and Southern families will have to be separately studied, in order that they may be taken into account in the general arrangement."

VI. DR. LEPSIUS has published a pamphlet entitled, "Standard Alphabet for reducing unwritten languages and foreign graphic systems to a uniform orthography in European letters."

In this most interesting publication the following passages occur: "In Asia, the birth-place of alphabets, the chief nations already possess a written literature in their own native characters. This has afforded to European colonists and rulers, as well as to Missionaries, the means of exercising an intellectual influence over those nations. The English government in India therefore generally makes use of the alphabets most extensively employed in those regions; viz., the Persian and the Dêvanâgari letters, in order to govern and instruct the nations subject to their authority. The Bible Societies have also published more than 40 translations of the Sacred Scriptures in those foreign characters. But, nevertheless, it has been often and forcibly urged, that many important advantages would arise from the substitution of a European for the Native alphabets. For besides the superiority which the uniform division of the syllable into vowel and consonant gives to the European alphabet over the unweildy syllabic alphabets of Asia, and still more over the Chinese Word-Alphabet, with its many thousands of symbols, every new alphabet constitutes a natural and almost impassable barrier between foreign and European civilization, by materially increasing the difficulty of acquiring such languages, and of becoming acquainted with their literature.

Hence the introduction of the European characters for the Indian languages has been supported by the present Government, and Bible Societies have already published a number of translations upon the same system. Commencements of the same kind have already been made in China by the Missionaries, and bid fair to succeed.

VII. PROFESSOR MAX MÜLLER who has done so much to give an impetus to philological studies, has published a work with

which many of my readers are doubtless familiar, entitled, "*The Languages of the Seat of War in the East, with a survey of the Three Families of Language, Semitic, Arian, and Turanian.*"

In the "proposals for a Missionary Alphabet," prefixed to this work, p. LXXXVI., the following remarks occur, and are well worthy of being attentively considered.

"Wherever Missionary influence is powerful enough, it should certainly be exerted towards breaking down those barriers which, in the shape of different alphabets, prevent the free intercourse of the nations of the East."

"The philologist and the archæologists must, indeed, acquire a knowledge of these alphabets, as in the case when their study is a language extinct, and existing, perhaps in the form of inscriptions alone. But where there is no important national literature claiming to a national alphabet, where there are but incipient traces of a reviving civilization, the multiplicity of alphabets—the worthless remnant of a by gone civilization bequeathed, for instance, to the natives of India—should be attacked as zealously by the Missionary as the multiplicity of castes and of divinities. In the Deccan alone without any literature of either national or general importance, we have six different alphabets—all extremely difficult and inconvenient for practical purposes. Likewise, in the northern dialects of India almost every one has its own corruption of the Sanscrit alphabet, sufficiently distinct to make it impossible for a Bengalese to read Guzerati, and for a Mahratta to read Kashmirian letters. Why has no attempt been made to interfere and recognise at least but one Sanskrit alphabet for all the northern and one Tamilian alphabet for all the Southern languages of India? In the present state of the country, it would be bold and wise to go even beyond this; for there is very little that deserves the name of a national literature in the modern dialects of the Hindûs. The sacred, legal, and poetical literature of India is either Arabic, Persian or Sanskrit. Little has grown up since in the spoken languages of the day. Now it would be hopeless should it ever be attempted, to eradicate the spoken dialects of India, and to supplant them by Persian or English. In a country

so little concentrated, so thinly governed, so slightly educated, we cannot even touch at present what we wish to eradicate. If India were laid open to high roads, reduced by railways, and colonised by officials, the attempt might be conceivable, though as to anything like success, a trip through Wales, and a glance at the history of England, would be a sufficient answer. But what might be done in India perhaps even now, is to supplant the various native alphabets by Roman letters. The people in India who can write are just the men most open to Government influence. If the Roman alphabet were taught in the village schools of late much encouraged by the Government, particularly in the North Western Provinces; if all official documents, in whatever language, had to be transcribed into Roman letters to obtain legal value; if the Government would issue all laws, and proclamations transcribed in Roman characters, and Missionaries do the same with their translations of the Bible and other works published in any dialect of India, I think we might live to see one alphabet from the “snows to Ceylon.”

On the substitution of the Roman for the Indian characters. By
DR. CALDWELL.

(Communicated to the Madras Literary Society by Sir C. E. TREVELYAN.)

[This paper has been contributed by the Rev. Dr. Caldwell, the author of the "Comparative Grammar of the Dravidian or Southern Indian Family of Languages" which is decidedly the best book on ethnology and philology which has been published for many a long year. The paper also derives a peculiar interest from the fact, that the important subject of it—the application of the Roman letters to the languages of Southern India—has been thought out by the able and learned Doctor, without his having had access to the publications on the application of the same letters to the languages of Northern India. The book just published by Professor Monier Williams, and a pamphlet which may shortly be expected* from the Rev. G. U. Pope, will supply ample information to everybody who is interested in the subject.]
—C. E. T.

SIR,

THE time appears to have arrived for the discussion in Southern India of a question which has made much progress in the North-West, the expediency of substituting the Roman character for the various characters now in use in India.

On this side of India, so far as I am aware, the plan has rarely, if ever been seriously discussed. It has generally been regarded as a quixotical crotchet which may most fitly be met with a smile. What is chiefly required, therefore, as it appears to me, in this Presidency, is that the subject should be duly ventilated, and that educationists, missionaries, and public functionaries should be induced to bestow upon it a little serious attention.

Professor Max Müller has advocated the plan in his "Proposals for a Missionary Alphabet." Professor Monier Williams has also thrown his weight into the same scale, and has recently, I perceive, brought out a re-print of the principal documents that have been published for and against the scheme, since it was first mooted in Calcutta in 1834, I believe, by yourself. I am sorry that I

* This has since been published by Messrs. Gantz and Brothers, Madras.

have not met with any of these publications ; my ignorance of them, however, enables me to treat the subject independently, from a purely Indian point of view, and with special reference to the objections of persons who are practically conversant with the Indian languages.

The first thing to be done, on entering upon the consideration of this subject, is to satisfy ourselves whether the substitution of the Roman characters for the Indian, supposing it to be possible, would not be in the highest degree desirable and expedient.

I. In endeavouring to make this point quite clear at the outset, the consideration which first claims our attention is the intrinsic superiority of the Roman character to all others.

a. It is the simplest character in existence. Its 26 symbols are found to be sufficient for expressing all the consonantal and vowel sounds in the English language, and the addition of a very small number of accents has enabled it to meet the wants of the French, the German, and the Hungarian, the most widely differing systems of sounds in Europe.

b. It is the distinctest, most legible character in existence. No amount of practice will ever enable any one to read a florid character like the persian, or complicated characters like the Déva-Nágari, the Telugu, and the Singhalese, with the precision and rapidity with which the unadorned Roman character is read by the most ordinary readers.

So legible is it, that the practised eye can take in an entire page of a well printed European book at a glance, so as to have a general idea of the contents ; whereas every Arab or Hindú, how well soever he may be acquainted with his own language and with its character, must confess that he cannot take in at a glance more than a few words of any book or MS. at a time, nor be sure of the meaning of a sentence unless he has read every word in it right through.

The Oriental regards as an impossibility the Englishman's ordinary daily achievement of ascertaining the news by merely looking over his newspaper, and gaining a correct general idea of the contents of a book by merely turning over the pages.

The wonderful legibleness of the Roman character, in compari-

son with all others, arises partly from its employment of a few independent, unchangeable characters for the expression of the vowel sounds, instead of a variety of minute signs and points ; partly from its preference for straight lines, angles, and unadorned circles and arcs to the flowing tracery and complicated diagrams of oriental alphabets ; partly from the circumstance that its letters are of different heights, half of them being on a level with the line and the other half rising a little above it or sinking a little below it, so as to facilitate identification ; and partly also from its retention of an older form of the characters for use as capitals.

c. The Roman character is the compactest in existence. In no other character can so large a quantity of matter be compressed into so small a compass, without crowding the page or confusing the eye. It is, therefore, of all characters the cheapest for printing.

d. It is politically and geographically the most suitable for universal use, and the only character which has the smallest chance of obtaining this distinction. It would be absurd to propose that the Malayálam character should supersede the Gujaráthí, or the Tamil the Bengálí. It would be almost equally unreasonable to propose the substitution of any one character of a class for another of the same class, as the Tamil for the Telugu, or the Bengálí for the Gujaráthí. None of these characters has any claim to be used beyond the limits of the language to which it belongs.

The only characters known in India which possess any such claim are the Hindústání, the Déva-Nágari, and the Roman.

Of these, the Hindústání (the Persian slightly modified) is one of the least legible characters in existence, and its sole recommendation, the political supremacy of the Muhammadáns, has ceased to exist.

The Déva-Nágari, the most perfect of the Indian characters, is perhaps also the most legible, though very much less legible than the Roman. Probably also, next to Hindústání, it is the most widely known. It is little known, however, and less used, in Southern India, even by Bráhmans. In the Telugu, Canarese, and Malayálam countries Sanscrit is written in the characters peculiar to those languages, not in Déva nágari. In the Tamil country it is

written in a character called Grantham, a character from which the ordinary Tamil character is an off shoot. It is an error, though a popular error, and one which was recently repeated in the *Friend of India*, that the Déva-nágari is the parent of all the Indian characters now in use. The various characters that are used in Southern India and Ceylon have only a distant family relation to the Déva-nágari; being derived, by the process of incessant change, from the characters (preserved in king Asóká's inscriptions) which were in use in ancient India three centuries before the Christian era, and out of which the Déva-nágari was developed in the North, and the Telugu, the Grantham (or Tamil), the Singhalese, &c. in the south. It is clear, therefore, that the Déva-nágari cannot make out a claim to be more generally used than it is at present.

On the other hand, the Roman character, though introduced by foreigners, is already more widely known, if it is not used by a larger number of persons, than any other character in India. It is known where the Tamil has never been heard of, and where the Déva-Nágari has never penetrated. It is used in the administration of justice and in all Government proceedings in every corner of British India, together with Ceylon and Pegu, and in the capitals, at least, of all Protected States. In addition to its great intrinsic merits, it has the advantage of being used by those nations that stand at the head of the world's civilisation. It is the only vehicle in the present age of a liberal education, and the extent to which it is used in any district in India is a measure of the degree in which society has made progress in that district. It is evident, therefore, that as soon as it becomes a practical question whether some one character might not be advantageously substituted for the many that are now in use, it must be admitted that the only character which possesses any claim to this distinction is the Roman.

e. It may be added, though it is only a matter of archæological interest, that the Roman character is the best existing representative of that primitive written character which was used in the West by the ancient Phœnicians and Greeks, and in the East by the Buddhists of Behar, and which was probably

the origin of all the alphabetical characters that are now known in the world.

About a year and a half ago I had a conversation with Mr. Hunt of the American Mission Press in Madras, respecting the introduction of the use of capitals into Tamil printing, and showed him a few of the more ancient forms of the Tamil characters ; which seemed to me to be suitable for the purpose in view, inasmuch as they bore the same relation to the Tamil character now in use, of greater antiquity and greater simplicity, which is borne by the Roman capitals to the smaller type of our books. I endeavoured afterwards to make out in this manner a complete set of suitable capitals ; but the further I went the more I felt convinced of the accuracy of the hypothesis (first started by Kopp in 1821) of the Semitic origin of the Indian characters. It appeared to me to be certain, not only that all Indian characters had one and the same origin, but that the oldest form of the Indian characters was nearly identical with the Phœnician, which was the origin of, and substantially identical with, the old Roman. (See Weber's Lecture on this subject in his *Indische Skizzen*, 1857.) If so, I began to think, why stop short half way, by seeking only the advantage of the Tamil people, when by going a little further a great additional advantage to the whole empire might be secured ? If we have to go back a thousand years in search of Tamil capitals, which, when they are discovered, are found to differ almost as much from the modern Tamil characters as the Roman do, why not at once go back a thousand years more, and re-introduce the oldest characters of all (or at least, their most faithful existing representatives), and which are by far the best fitted of all for universal use, the Roman characters themselves ?

II. The next point which deserves attention is the number and importance of the advantages that might be expected to flow from the use of the Roman character.

Some of those advantages would be realised by Europeans at the very outset, as soon as a few books came to be published in this character, whilst others would remain in abeyance till it came to be generally used by the Natives themselves.

a. The use of the Roman character would facilitate the study of the Native languages by Europeans. It would, of course, be

as necessary as ever for Europeans to learn the sounds of the various vernaculars, and this could only be done by listening to and imitating the pronunciation of Natives, but the trouble, perplexity, and delay arising from the assumed necessity of learning intricate Native characters would be at an end.

It is true that a man who is thoroughly determined to learn a language will not allow himself to be baffled by any written character, however difficult. An enthusiast will get over the difficulties of the Chinese symbols themselves. But all men are not enthusiasts. It is desirable that all Europeans resident in India—merchants and soldiers, as well as missionaries and civilians, ladies as well as gentlemen—should learn one at least of the vernaculars ; but the necessity of overcoming at the outset so considerable a difficulty deters the majority of non-official persons from even making the attempt. Most East Indians also, though they can talk the Native languages fluently, are deterred by the difficulty of the character from learning to read, and in consequence, they exert much less influence in the country than they might otherwise do.

The necessity of using the Indian characters is found, however, to retard the progress of even the earnest student. We are constantly told that the Native characters may be got up in a few days, and that after that all difficulty is at an end. But is this really so ? Why is it then that so few Europeans can read any book or MS. in any of the Native languages fluently ? Why is it that you might almost count on your little finger the number of Europeans in the Madras Presidency who can *write* with any degree of rapidity in the Native characters ? The explanation is, that the Indian characters are so complicated and the modes in which the vowels are denoted and affixed to the consonants are so numerous and intricate, that fluent reading and ready writing are really very difficult attainments. I never met with an European who could read any vernacular book fluently at sight (leaving the meaning of what was read out of account) under a couple of years' constant labour and study, and there are some who never acquire this facility at all, but are always obliged to spell their way through a book in private before they can venture to read it in public.

There is also an ulterior disadvantage. Even those who are most fully resolved to learn the vernacular of their district thoroughly, and who complain least of the difficulty of the character, are often deterred by similar difficulties from learning any additional vernacular. Each of the principal languages of India unfortunately possesses a character of its own, and hence, notwithstanding the closeness of the relation subsisting between the Bengálí, the Hindí, the Gujaráthí, and the Marathí, the principal languages of the Sanscritic family, and in like manner between the Tamil, the Telugu, the Canarese, and the Malayálam, the principal languages of the Drávidian family—a relationship which is so close that one might easily learn the difference between the various languages of the same family, in grammar and use of words, without the aid of a teacher, if one character only were used instead of many, yet the fact is that few Europeans, besides those who are required by the rules of the public service, acquire any acquaintance with more than one of the vernacular tongues. If every Tamil scholar were enabled to read books in the cognate languages, without the trouble of learning a new character, few persons would neglect so easy and interesting a study, and the consequence would be, not only that Tamil scholarship would be much riper, I believe, than it is, but also that every one who wished to make himself useful in his generation would be enabled without difficulty to double or treble his capacity for usefulness.

b. The use of the Roman character would facilitate Native education. I have just said that foreigners, though they may be well acquainted with the Indian vernaculars, are rarely able to read them fluently, but the same deficiency may generally be noticed amongst the Natives themselves. Natives who are employed in the public service, are enabled, by dint of constant practice, to read with much facility, but the great majority of the people, including the majority even of the schoolmasters, read with much hesitation and difficulty. In the rural districts, a fluent reader is almost as rare as a profound scholar. The accuracy of this statement will be admitted by every missionary who has been brought into contact with the masses, and who has tested the ability to read of those who have asked him for tracts and books. The hesitancy with which

most Natives read is generally attributed to the inferior quality of the education they receive. Doubtless the education communicated in the old, unimproved vernacular schools is defective enough, but considering the length of time the children generally stay in school, they ought at least to master the mechanical art of reading. It is a Native proverb that "arithmetic and writing (literally letters, that is, reading and writing) are the two eyes of man." Native arithmetic is undoubtedly well learnt in Native schools, and as the Natives are equally desirous of learning to read fluently, the exceeding rareness of this accomplishment must be owing to the difficulty of their character. Every one who has attentively listened to Native reading and noticed the *class* of mistakes that most frequently occur, will be able to confirm the accuracy of this opinion.

I have had considerable experience myself for many years in the superintendence of vernacular village schools, in the daily instruction of pupils in mission boarding schools, and in the training of schoolmasters and catechists, and so far as my own experience has gone, the ability to read any printed book fluently at sight, without mistakes, has always appeared to me to be one of the rarest of Native acquirements. However clear the style of the book may be, and however familiar the subject, I have found that almost all Natives will commit blunders in reading, which similarly taught English people would never commit in reading English.

The perplexity of the Native characters presses still more heavily upon children than upon adults. In examining from month to month the progress made by Native children in learning their letters, the difficulty of the Native character has often forced itself upon my attention. To learn any Indian alphabet thoroughly, so as to be able to combine every consonant with every vowel and to know the various combinations of consonants, involves an acquaintance with from 200 to 500 symbols, according to the nature of the alphabet, and is surely the most difficult task to which poor school children are set in any country in the world. So difficult is it, that ere the duller sort of children have learnt their letters, the time is come when they should leave school. At least five per cent. of the pupils in Native schools, not including idiotic children

or truants, fail to get through even the alphabet, which is the *pons asinorum* of Hindú education. Every one has pitied the fate of unfortunate Native children, who are compelled to toil every day from 6 o'clock in the morning at so wearisome a task, but almost every one has fancied that it was impossible to let them off more easily. I believe that the case was not so hopeless as was supposed. Possibly some Europeans, though they admit that the Indian characters are difficult, are not prepared to admit that they are a practical obstacle to education; or at least, they will not make this admission with respect to the character which they have themselves learnt. A person who has succeeded in learning to read Telegu with ease, will not admit that the Telugu character is an obstacle to knowledge, but he is ready enough to cry out about the perplexities of the Tamil or the Malayálam. Vice versâ, one who has overcome the difficulties of the Tamil character professes to find his fetters on the whole a convenience to him rather than otherwise, but he has no mercy on the Telugu, which "goes out of its way," he will say, "to invent difficulties." Every character in India will find apologists in turn. "It is true they are difficult," it will be said, "but the difficulty is unavoidable and is soon got over." People are unwilling that what occupied so much of their own time should be considered as valueless or worse, and wish to impose the same task upon their successors. Perhaps, therefore, the best way to form a fair, impartial estimate of the difficulty of the Native characters, and to judge whether or not they are an obstacle to education, will be to call attention to a character which is unknown on the Continent of India, though as truly Indian in a general sense as any other—I mean the Singhalese.

This character on the whole resembles the Telugu more than any other now used in India, though the mode in which it combines its vowels with its consonants has most resemblance to the Grantham. It is unnecessary to write or print the letters and vowel symbols referred to in the following extract from Lambrick's Singhalese Grammar: the English explanation of their use and meaning will be sufficiently intelligible (?) of itself. Note, that what follows is to be learnt by Native children, as well as by adult foreigners.

Aelapilla.	Combua.	Raibha.
Ispilla, 1st and 2nd	Aeda.	Matransi.
Papilla, do. do.	Gahenukitta.	Yangsi.
Al, do. do.	Bindu.	Sanyaga.

Ispilla, Al, and Raibha are written above their letters ; Papilla Aeda, and Matransi are written below their letters.

The others are written on the same line ;—Combua and Sanyaga before their letters ; Aelapilla, Gahenukitta, Bindu, and Yangsi, after their letters.

The first Ispilla is joined to letters that have a tail turned back, the second Ispilla is used with all other letters.

The first Papilla is joined to *k*, &c., the second Papilla is joined with all other letters.

The first Al is joined with all letters that have a tail turned back, the second Al is written with all other letters.

Use of the Symbols.

A is made long by aelapilla, *u* by gahenukitta, the other three by al. The peculiar vowel is written by adding aeda to *a*.

Aelapilla is the symbol for *a*.

Ispilla is the symbol for *i*, ispillagaeta for *î*.

Papilla is the symbol for *u*, papilla paekanea for *û*.

Combua is the symol for *e*, combua with al for *é*.

Combua with aelapilla is the symbol for *o*, al added to the aelapilla makes *ô*.

Combua with gahenukitta is the symbol for *au*.

Combua doubled is the symbol for *ai*.

Aeda is the symbol for the peculiar vowel sound ; aeda paekanea makes this vowel long.

Al has two uses : first it lengthens a vowel, secondly when joined to a consonant that has no symbol it suppresses the inherent vowel. (!)

Bindu is properly a substitute for *ô* ; but in common writing it is substituted for all the vowels with al. (!)

Bindu doubled is a symbol for *kh*. (!)

Raibha is the symbol for *r* preceding another consonant.

Matransi is the symbol for *r* following another consonant.

Yangsi is the symbol for *y* following another consonant.

Sanyaga has two powers : first, before the rough linguals it is the sign of the corresponding smooth lingual, also before *w* it stands for *d*. Second, before all other consonants it stands for *a* nasal pronounced slightly. (!)

On studying the above scheme of symbols, with the conflicting rules respecting their position and their double or treble conflicting significations, the apologists of the Déva-nágari, Telugu, Tamil, and other characters, have an excellent opportunity of forming an unbiassed judgment respecting the merits of the Indian system of writing. If they have not already learnt Singhalese, I have no doubt that they are unanimously of opinion, that it would be unwise to give their sanction to the use of such a character, or to do any thing that would ensure its perpetuation, seeing that it is so evident that it must be an obstacle to education. They will admit at once that it would be a mercy to poor Singhalese children to set them free, if it were possible, from the necessity of getting up these minute, intricate, perplexing rules. "Bradshaw" itself would be a pleasant easy study for children of five years of age in comparison with this alphabetical puzzle ! One would almost imagine that it had been the wish of the Singhalese schoolmasters to invent a system of writing which should enable them to keep all the knowledge in the island in their own hands for ever. In forming this judgment of the Singhalese, however, the Indian systems will be found to come under the same condemnation ; for, after all, on a careful comparison of each of the Singhalese symbols with its counterpart in Tamil and Telugu, I have not been able to see any essential difference between the system of Ceylon and the systems of Southern India. For example, it is a rule of the Tamil, as well as of the Singhalese, mode of writing, that the symbols which represent the vowels *e* and *ai*, in combination with the consonants, *precede* the consonants to which they belong, though they are pronounced *after* them. Thus "veda" is written in Tamil "*evda*," though it is pronounced *veda*, and "Vaigai,"

the name of the Madura river, is written “Aivaig !” So also, it is a rule of the Tamil, also of the Singhalese, that the vowel *o*, in combination with a consonant, is denoted by the symbols proper to *e* and to long *a*, and that the *e* precedes the consonant and the *a* follows it, though the *o* which they unite to denote is pronounced after it. Thus Kóttai, “a fort,” is written “Ekatait !” Surely nothing in Singhalese can be more perplexing than this. I have got accustomed to write “Kóttai” in this extraordinary fashion in Tamil, and feel no difficulty in it now, but I made several mistakes before I succeeded in transliterating the Tamil spelling correctly into English as above. I feel sure that every foreigner learning Tamil, and every Tamil child, would be thankful to be freed from the necessity of writing Ekatait for Kóttai.

Even the Déva-nágari is chargeable with this strange anomaly, for though it denotes *o* in a more rational manner, it requires us to write short *i* before the consonants which it ought to follow. Thus “tri,” three, is written “itr.”

It is evident, therefore, that if the Singhalese system seems to persons who are conversant only with the Indian systems more perplexing than the Indian ones, it is only because they are less accustomed to it, and in a better condition for forming an impartial estimate of its defects.

It may be concluded, then, that the substitution of the Roman characters for the Indian, supposing it to be possible, would greatly facilitate Native education. It would render it easier for Native children to learn to read, and would thus increase the number of readers and facilitate the diffusion of knowledge, whilst it would also bring the accomplishment of good fluent reading within general reach.

c. The use of the Roman character throughout India would enable each people to participate in the intellectual advantages enjoyed by its neighbours. What a calamity would it have been for Europe and the world, if each European nation on emerging from barbarism had adopted a written character of its own ! Each separate character would have formed a wall of separation, by means of which the various nations would have been kept in ignorance of one another and precluded from competing with, and stimulating

one another in the race of civilisation. The calamity which Europe escaped has unfortunately fallen upon India, the various populations of which, though civilised from a common source, are surrounded and isolated not only by differences of language and caste, but by the use of different characters. So long as the country was parcelled out into a multitude of independent political divisions, this evil could not be remedied, but now that a single Government has acquired a position of commanding influence in every part of India, there seems to be no reason why the different nations might not be united together by the use of a single alphabet. If this were done, the various languages belonging to each of the great families being very similar in structure and pronunciation, books and newspapers published in any one language would become more widely diffused in other language districts, and more extensively useful, than at present. Whatever works of genius or results of progress distinguished any one people would speedily become the common property of the race, and the empire would learn to feel itself to be one. The Roman character being in general use, the study of the English language would necessarily be popularised, and it might reasonably be expected—it might at least reasonably be hoped—that the gulph which now separates the Eastern mind from the Western would by degrees be bridged across. The adoption by the East of the Literary symbols of the West would be at least a step towards union, and a sign of the deeper union which is desired.

d. If the Roman character were in general use books might be printed at a greatly reduced cost. This advantage would necessarily appear last in the order of time; it would not take effect till the change became universal or at least very general; but it must be admitted to be an advantage of great national importance.

The various Indian characters occupy much more space than the Roman, and their twirls and ornaments, together with the clumsy mode of combining consonants which prevails in many of them, viz. tying them up one within the other in a bundle, instead of placing them one after the other in the order of their pronunciation, render it necessary that the lines should be kept far apart. Some of the Indian characters have been a good deal compressed already by the

ingenuity of foreign printers, but they cannot be compressed any further without seriously endangering legibility.

Supposing the Roman characters to have come into general use, every variety of English type, down to the smallest, would be immediately available for printing vernacular books; and cheapness and legibility, instead of being antagonistic qualities, as at present, would go hand in hand.

One advantage of the change would be that printers would be able to introduce all English improvements, to give their books a more inviting appearance, and to suit the taste of the public, or rather, to create a taste, by the use of a greater variety of styles than is practicable at present. Another advantage, and a still more important one in a populous, poor country like India, would be that it would cheapen printing to an enormous extent. The difference in size and price between English books and books printed in the vernaculars is chiefly owing to the difference of type. The best means of forming an accurate comparative estimate will be to take some book which has been translated as closely as possible from English into one of the vernacular tongues, and to compare its price in the two languages. Compare, for instance, the English Bible with the Tamil Bible. I recently received a grant from the Madras Auxiliary Bible Society of several hundreds of copies of their "Jubilee edition" of the Tamil Bible. This Bible is one of the clearest, neatest, compactest, cheapest specimens of Tamil typography which I have yet seen, and we are indebted for it, as for almost all improvements in Tamil printing, to Mr. Hunt of the American Mission Press. This Bible which is one of Mr. Hunt's triumphs, is of the size of an English "Family Bible," weighs five pounds, and its price to non-subscribers, which is, I presume under, rather than over, its cost price, is Rs. 4-12 or Sh. 9-6. At the same time, and from the same Society, I received a grant of some copies of the English Bible, so that I was naturally led to draw a comparison between them. The edition of the English Bible which was sent to me was published for distribution amongst the labouring classes in England, and seems to be printed in a sufficiently clear type, and to be neatly enough got up, for general use in schools in this country. It is too large to be called a "pocket Bible," and would be just the size for general use among Hindú

christians, who are not accustomed to wear pockets. It weighs one pound, a fifth of the weight of its Tamil translation, and its title, "the ten-penny Bible," tells its own tale respecting the difference in price.

The size and costliness of all vernacular books form an incalculable hindrance to their circulation and general use, and place the purchase of them beyond the reach of the majority of Hindú readers. The necessities of life being six times as cheap in India as in England, and skilled labour (such as is procurable) being cheap in proportion, books also ought to be six times as cheap; whereas, instead of being six times cheaper, they are at least ten times as dear. The necessity of using certain English materials may partly account for this, but the greater part of the extra expense must be placed to the account of the Indian characters. If this expensive character could be got rid of, the greater cheapness and portableness of printed books would stimulate the literary appetite of the people, facilitate all efforts to enlighten and elevate them, and probably lead to results of immense importance in the hidden future.

I do not contend that the substitution of the Roman characters for the Indian would, all at once, and in all cases, make vernacular works as cheap as English ones. In printing works in the Dravidian languages, in which many of the words consist of long strings of particles agglutinated together, more types would have to be set up, more space would be occupied, and more paper would be required, than if the same quantity of thought had to be printed in English. The difference, as respects books translated from English, would amount to an addition of nearly three-fourths more matter: that is, a page of English turned into Tamil, even if the Roman characters were used, would occupy about a page and three-quarters. Original Tamil compositions, however, would not, or at least need not, occupy more space than English, for the lengthiness of the Tamil words has taught all writers who wish to be regarded as classical to cultivate a highly condensed style. Even supposing, however, that Tamil works printed in the Roman character were to cost twice as much as English and to reach twice the size, which is considerably beyond a fair estimate, the gain to Indian purses and the stimulus to Indian minds, would still be very great.

It is admitted that this particular result, the cheapening of vernacular literature, would not take effect till the Roman characters came into very general use, and as the force of custom in this old conservative country is prodigiously great, the most sanguine reformer will have to make up his mind to wait a considerable time. My argument, however, will not be weakened by the probability of delay. I only ask it to be supposed, that somehow, at some period or another, the change has been effected, and I argue that the consequence of the change would be, that books would become cheaper, that readers would become more numerous, and that the Native mind would receive a stimulus of incalculable force. Is not this deduction a valid one? If it is a valid deduction, then however difficult the change may be, and however long the difficulty may continue to be felt, it is evident that it is one of those difficult achievements which are worth working for.

Most persons who are opposed to the change here advocated are ready to admit its desirableness in the abstract. Their position is, that it is surrounded with difficulties, and, in short, that it is impracticable. If so, it might be thought that I need not have troubled myself to prove the superiority of the Roman character and the advantages that would flow from its adoption, but should have confined myself to proving the practicability of the scheme. It seemed desirable, however, to show the exceeding strength of the argument from expediency before proceeding farther. Let it be admitted, as I think it will be, that the change would be in the highest degree desirable and expedient, if only it were practicable, and it must then also be admitted, that nothing short of the clearest proof of its impossibility should deter us from making the attempt.

III. I proceed to consider various objections to the plan which have been mentioned to me, and which have been supposed to prove it to be impracticable, reserving to the last the strongest objection of all (I think I may style it the only objection of any real strength), the alleged inadequacy of the Roman character to express the sounds of the Indian languages.

a. It is objected that, even if the change be not impracticable in itself, it is impracticable now. It might perhaps have been possible, it is said, to express all the languages of India in the Roman cha-

racter, if other characters had not already pre-occupied the ground. We have to deal with a people, it is said, who have had a literature of their own and characters of their own for thousands of years, and what instance is there on record of such a people having been induced to change their written characters? Besides, ever since the arrival of the English in India we have been using those characters ourselves, printing books in them, and doing what we could to ensure their perpetuation. I do not underrate this difficulty; we have doubtless allowed the best time for making such a change to pass by; but if the advantages of the plan are so great as they have been shown to be, and if there is no inherent impracticability, we ought even now to make the attempt. "Better late than never."

As regards the use of the Indian characters by Europeans, the difficulty arising from *their* attachment to custom cannot be supposed to render the change impossible. Even if all the Europeans now in India who have learnt the Native characters should decline to abandon as useless an acquirement which cost them so much trouble, every new arrival would be delighted to find his difficulties diminished. A generation of the English in India arrives and disappears, sad to say, in so short a period, that supposing only that all newly arrived Europeans were willing to adopt the change, it would come into almost universal use amongst the governing race in ten years.

Then also, as regards the Natives, though the change, on the most sanguine calculation, would take a considerable time—possibly it might never become absolutely universal—yet there are certain classes of Natives amongst whom it might make its way as rapidly as amongst newly arrived Europeans. I refer to the Native youth in government and missionary schools, and schools which are supported by Natives but conducted by Europeans. As those who are boys now will be the men of the next generation, and as the most influential Natives are those who have received their education in such schools, it is evident that it is only for Europeans to will it, and the only Natives of the next generation who are likely to possess any influence will have adopted the change. It was only last week that I saw in the papers that the

use of the Roman character had been introduced into all public schools in the Benares district. Let the same course be adopted elsewhere, and final success is sure.

A considerable proportion of the difficulty which exists, and which is alleged as a reason for regarding the change as impracticable now, is a difficulty which is being created by ourselves, and which we can put an end to whenever we think fit. Year by year we are labouring for the extension of education, and undoubtedly education is extending ; but seeing that the whole of the vernacular instruction that we communicate to Native youth, at least in this part of India, is still conveyed to them through the medium of the Native characters, by perpetuating those characters, we are perpetuating obstacles to education.

In some parts of India we are going further even than this, for we are introducing the Native characters where they were previously unknown. We are endeavouring to civilise and educate wild hill tribes who never had any written character before, and where languages are widely different from those that are spoken in the adjacent plains, and yet, instead of taking the opportunity of teaching them our own simple characters from the outset, we are puzzling their brains and giving them a distaste for education, by setting them to learn the complicated characters invented by their subtle Hindú neighbours. Thus, we are teaching the Bengálí character to the Sántáls of the Rajmahal range, who speak a Kôl language, and the Malar, or "hill people," of the same range, who speak a Dravidian language. We are teaching the Uriya character to the Khonds of Goomsoor, and the Nágari to the Gonds of the Nerbudda, both Dravidian tribes ; and the aborigines of the Nilgherries, peculiar Dravidian tribes, are being taught the Tamil and Canarese characters. In these instances we appear to be going out of our way to invent difficulties which must afterwards be removed.

Perhaps the best argument in proof of the practicability, even now, at this late period of Indian history, of substituting one set of characters for many, is the fact of a similar substitution having already been made. *The numeral characters of Europe have recently been substituted for the numeral characters of India, and are now rapidly winning their way to universal use.* I am aware that strictly

speaking those characters are not European : we borrowed them from the Arabs, and the Arabs from the Hindús ; but so many changes have been made in their shape during the lapse of ages, on the one hand by Europeans and on the other by the Hindús themselves, that there is now not much more resemblance between the Indian ciphers, as used by Hindús, and their European equivalents, than there is between the alphabetical characters of India and those of Europe. In the Tamil country, the ancient shapes of the ciphers were more completely lost than elsewhere, and even decimal notation, though a Hindú invention, had been completely forgotten. In consequence of this, the old Indian numeral ciphers that were re-introduced from Europe were universally called " the English numerals," and the old Indian system of notation was called " the English mode of arithmetic." In this instance, as truly as in that of the alphabetical characters of India, the ground had been pre-occupied for ages ; but notwithstanding this, Government came to the conclusion that it was expedient that the English cipher and the English modes of calculation should alone be used in all public accounts. It had been the custom that the public accounts should be made out first in the vernacular of the district, then translated into Maráthí for the benefit of the Saristadárs, (who were always Marátha Bráhmans, because none but Marátha Bráhmans could understand the Marátha accounts,) and then finally translated into English for the information of Government. But no sooner did Government determine that this round-about system should cease, and that the English cipher and English modes of calculation should be used from first to last, than the change was successfully accomplished. The substitution was carried into effect at a word, and now all Government officials, down to the Karnums of the villages, nor they only, but even the poorest peasant children in our schools (in this neighbourhood, at least, and I presume elsewhere,) are daily using " the English cipher."

It is true that at present every Native boy learns the Native numerals, as well as the English, but this double trouble will cease of itself in due time, when it is practically found to be unnecessary.

Here, then, is an instance, in point, of a substitution of one character for many, such as is here advocated, having actually taken place : and if we have succeeded in introducing our ten numeral characters into general use, is it quite clearly an impracticable task, even at this late period, to aim at obtaining similar currency for our 26 alphabetical characters ? It may fairly be argued that it will take a considerably longer time, but surely we should cease to be told that the thing is impracticable.

b. It is objected, that if the Roman character were introduced, there would be many different systems of applying it to the Indian languages, the result of which would be confusion worse confounded. It would be necessary to make use of accents and diacritical points for the purpose of distinguishing long vowels from short ones, and denoting certain peculiar Indian consonants. Every person, it is said, would have a diacritical system of his own, and in the end it would be found, that documents could be deciphered only by the person who wrote them.

I admit the existence of this danger, though not its alleged amount ; but a danger which, when foreseen, may be guarded against by a little consideration, is a very different thing from an insuperable obstacle. It is often necessary even at present to represent Indian words by means of English characters. Passages from the poets, dicta from the law books, peculiar Native expressions on which some dispute hinges, require sometimes to be transliterated, and not merely translated. It is still more frequently necessary to write in Roman characters the names of persons, places, books, &c., together with the revenue and administrative terms. As the propriety of adhering to a system is not at present practically felt, and as some of the details of the Roman system are still unsettled, persons who find it necessary to transliterate Indian words are generally accustomed to do so according to their own taste and fancy. Thus, in the last Report of the Madras Bible Society one writer calls the sacred books of the Hindús *Vedas*, another *Va-thems*. In a catalogue of books sold at the Government Book Depots which has just been published, the Sanscrit word for "morals" is written in one place *neethi*, in another *niti*. But the most extraordinary specimens of optional spelling which I have

yet met with are to be found in the large government maps of India.* In that part of the map which includes the district of Tinnevely, the Tamil word for "tank," a simple dissyllable is written in thirteen different ways! Though there is much confusion at present, owing to the absence of an authorised system, it by no means follows that this confusion would continue after a system had been fully considered and definitively introduced, and people generally had become aware of the existence of the system.

Even at present, there is no difference of importance amongst Orientalists respecting the way in which Indian words should be written. As regards the letters by which the Indian vowels should be represented, which is the most important point of all, English, German, and French Orientalists are now perfectly agreed. The points respecting which differences of system still exist are of small moment and might easily be settled. Still I fully admit that they require consideration, for any attempt to introduce into general use a system which had not been thoroughly thought out and digested in all its details, would probably end in failure and throw the scheme back another 30 years.

I will refer hereafter to minor details, but I may here mention some general principles which will require to be considered. (1.) A system which takes the Sanskrit alone into account and contents itself with meeting the wants of the Sanskrit, will not suit the purpose in view, which is to apply the Roman character to all the languages of India. The wants of the Hindústání and of the Dravidian languages will also have to be provided for. For instance, Sanskrit is destitute of the short sounds of *e* and *o*. Consequently Sanskrit scholars, who distinguish the other long vowels by accents, leave these two long vowels without any distinguishing sign. This would, however, introduce confusion into the Dravidian languages, which have short forms of *e* and *o*, as well as long. It will be necessary, therefore, to deal with the Indian languages as a whole, in order that there may be but one system in use everywhere, and also to study separately the peculiar necessities of each of the Indian languages, in order that the peculiarities of each may be taken into account in the general arrangement. (2.) Another difficulty which must be taken into consideration re-

lates to the use of accents and diacritical points in *cursive* writing. Such devices may succeed very well in printed books, but are they equally suitable for manuscripts ? or can a system be invented which shall equally suit both purposes ? The cursive character must run, or else it is not " cursive," but running will be precluded, if people are obliged to stop too frequently to add on accents and dots. There is some danger lest the only thing that is considered is what is suitable for printing. For this reason Prof. Monier Williams' plan (see his Sanskrit Grammar) of distinguishing the nasal of the guttural row (our English *ng*) by *n* with a dot on one side of it, appears to be inadmissible. (3.) The Germans seem to claim a national right to transliterate the Indian *y* by *j*, in consequence of which they are driven to represent the sound of *j* by *g*. In like manner, being accustomed to give a sound of their own to *ch*, they transliterate the Indian palatal *ch* by *k*. Seeing, however, that the English have a special interest in the matter, and that we are consulting not for ourselves only but for the Hindús, to whom English is the language of civilisation, we may at once, I think, determine to keep to our own usage in these points. We must yield up to the Germans and the rest of the world (indeed we have already yielded) our peculiar English mode of pronouncing the vowels ; but the consonants stand on a different footing.

With respect to these and similar matters, down to the minutest points of detail, we must see that every thing is duly considered before a commencement is made. Uniformity of plan is a necessary condition of success, and *this uniformity can be secured by the action of Government alone*. Considering that there are so many different languages and characters in India, so many different races and communities, and so many presidencies and protected states, it appears to me that in this matter, as in the introduction of the English numerals, Government must take the initiative.

c. It has been objected that the Roman characters are greatly inferior to the Indian in precision, seeing that each Indian character represents only one sound, whereas each Roman character represents many. It is admitted in reply, that there is a considerable difference in European tongues, particularly in the English and the French, between the spelling of words and their pronunciation,

though it does not follow that this defect is owing to the character. Even if it were owing to this, however, the superiority of the Indian characters to the Roman would not thereby be established, for the Indian characters also are used with a considerable latitude of pronunciation. It is commonly said that each Indian character has only one sound, that when once that sound has been learnt it must invariably be adhered to, and that every word is pronounced precisely as it is written ; but there is a good deal of exaggeration in all this eulogy. In Tamil, at least, every letter has as wide a margin of sound as in any European tongue.

The Tamil letter *t* has three sounds, and the proper place for each sound can be learnt only by practice. At the beginning of a word and when doubled, it is pronounced as *t*—more softly, however, than the English *t* ; after a nasal it is pronounced as *d* ; and in the middle of a word, when followed by a vowel it takes the sound of the soft English *th* in “than.” Only one character is employed, and yet the least violation of these rules grates unpleasantly on the Native ear. If the Roman *t* were substituted for the Tamil one, it does not appear to me that the difficulty which now exists would be in the least increased.

The same latitude of pronunciation characterises the greater number of the Tamil consonants. The vowels also have at least as many different shades of pronunciation as the English vowels. In pronouncing the vowel *a* for instance there are four distinct modes of pronunciation, each of which characterises certain classes of words. In like manner, every Tamil vowel, long or short, might be shown to have two or three different pronunciations, which are in reality so many diphthongs. They are not distinguished however from one another by any difference of character, nor is any notice taken of them in Native grammars, though the intelligibility of what is spoken depends in a great degree upon the accurate observance of these differences.

The objection which I am now discussing has really no validity at all, for whatever be the latitude with which particular letters are pronounced in the European languages, they will have that latitude only in the Indian languages which their Indian equivalents have already. In this respect the substitution of the one charac-

ter for the other will leave matters precisely as it found them. If the Indian *k*, *t* or *l*, or the Indian *a*, *i*, or *e*, happens to be pronounced in one way only, the Roman *k*, *t*, and *l*, and the Roman *a*, *i*, and *e* will in like manner have only one sound each. If the Indian characters represent, as they sometimes do, several different sounds, it will simply be necessary to pronounce the corresponding Roman characters in each of those different ways, as the usage of the language may require. No existing advantage, therefore, will in reality be forfeited, whilst, as was previously shown, many will be gained by the use of the Roman character.

I may here add that the danger to the acquisition of a correct pronunciation of the Native languages arising from the use of the Roman character seems to be equally unreal. It is quite true that the English characters will naturally in the first instance suggest to the beginner their corresponding English sounds, but this is a danger to which every person who commences to learn a new language by book is exposed. The Englishman learning to read French, the Frenchman learning to read German, the German learning to read Hungarian, is constantly liable to pronounce old familiar letters in the old familiar manner. It will always be necessary to learn pronunciation by the ear, not by the eye. But whilst I admit that learners may be tempted to pronounce the Roman characters not in the Indian but in the European manner, I ask are not the Indian characters themselves pronounced at first in the European manner by every learner? As soon as the learner discovers that such and such Indian characters are the equivalents of such and such European ones, he forthwith supposes that the sounds also must be identical. It is only after many errors that he learns that, whatever the literary symbols of a language may be, the sounds of the language are to be learnt exclusively from the speech of the people.

d. The last objection, and the most serious is, that there are sounds in the Indian languages for which the Roman character has no equivalent letters. This is undoubtedly a valid objection, so far as it goes, and there are many persons who would give in their adhesion to the scheme, if only they thought that this difficulty could be satisfactorily disposed of. Supposing it to be prac-

ticable, they are ready to admit all the advantages that have been attributed to it, and to abandon all the objections that have been hitherto mentioned as invalid ; but they are persuaded of the inadequacy of the Roman character to the expression of the Indian sounds, and on this ground they reject it as impracticable.

Until lately I held this view myself but like most other people, I presume, without examination. A few years ago, however, I found it necessary, in preparing for the Press a Comparative Grammar of the Dravidian languages, to represent a great many words belonging to those languages and some Sanskrit ones in the Roman character, for the sake of facilitating comparison and keeping down expense. I had no intention of experimenting upon the adequacy of the Roman character for the purpose in view, and some of the details of the system which I pursued were not thoroughly satisfactory ; but I did the best I could under the circumstances, and as I went on I was gratified to find that the use of the Roman character was much more feasible than I had supposed. I met with no difficulty that appeared to be insuperable, and such difficulties as I did meet with were wholly owing to the absence of an authorised system.

Let us see then whether the alleged impracticability of the scheme will hold its ground when carefully examined. I will endeavour to show, first, that the majority of the Indian sounds can be expressed by the Roman characters without any change whatever, and then, that the Roman character can be enabled to express the remainder by the help of a very small number of accents and points. In doing so, I will endeavour to help forward the definitive settlement of details, a point of great present importance, by giving the particulars of the plan which now commends itself most to my own mind.

(1.) The number of letters in the Indian languages which cannot be transliterated, just as they stand, without the addition of any accents or points, is in reality very small, and the number of such letters is smaller in some languages than in others.

The following vowels and consonants of the Déva-Nāgarī alphabet, and of the alphabets which follow the same arrangement, can

be represented by the Roman characters quite as easily as by the Indian.

I adhere to the order of the Déva-Nágarí.

VOWELS.

Short Vowels, a, i, u, e, o.

Diphthongs, ai (or ei), au.

CONSONANTS.

Gutturals, k, kh, g, gh.

Palatals, c, ch, j, jh.

Dentals, t, th, d, dh, n.

Labials, p, ph, b, bh, m.

Semi-vowels, y, r, l, v.

Sibilants,—sh, s.

Aspirate, h.

On examining the above list, it will be seen that I have transliterated one consonant, with its aspirate, somewhat differently from the usual mode. The first consonant of the palatal row is generally represented by *ch* and its aspirate by *chh*. I have preferred *c* and *ch*. This change seems desirable partly for the sake of the Sanskrit itself, in which *ch* is a purely palatal letter, without any admixture of an aspirate, and therefore unaptly transliterated by a compound letter with an *h* in it (besides which the aspirate *chh* is particularly awkward), but chiefly for the sake of the Tamil, which uses its own *ch* as the representative of all palatal and nearly all sibilant sounds. The Tamil borrows occasionally Grantham letters for expressing the strong sibilants *sh* and *s* when they occur in Sanskrit words, but it always uses its own *ch* for “the *s* of Siva” (and sometimes for *s*), as well as for *ch*, *chh*, *j*, *jh*.

This Tamil letter, when single, has a sound midway between *ś* and *ch*, but when doubled has exactly the sound of the English and Devanagari *ch*. It is fortunate for the Deva-nagari *ch* that it is rarely doubled; but the Tamil *ch*, is doubled very frequently, and if it were represented by the Roman *ch*, we should meet the barbarous combination, *chch*, in almost every line. We should thus also be wasting two *h*'s on a compound which has no aspirate in it, and that

in a language which possesses no aspirate whatever. For these reasons it appears to me that *ch* may best be transliterated by *c*, a letter of which no other use has been, or can be, made in the Indian languages, and which, therefore, can be used for this purpose without any danger of misapprehension. On this plan, the Sanscrit *c* and *ch* would correspond symmetrically to *j* and *jh*, and the awkward compound *chch* would be replaced in Tamil by *cc*.

Whether this suggestion be finally adopted or not, neither *c* nor *ch* requires the help of any diacritical point. For this reason I think the French *cédille ç* less suitable.

It will be observed that I have adopted the English *sh* as the representative of the peculiar Sanskrit “*s* of Vishnu,” which is sometimes represented by *śh*, and the English *s* as the representative of the Sanskrit *s*. It is, therefore, only the first of the three sibilants, the “*s* of Siva,” which will require some distinguishing sign.

(2.) We now come to those Indian sounds or characters which cannot be represented by the Roman character without the aid of accents or points. It will be seen that characters of this class are not numerous, and that they can be provided for by the use of two, or at the utmost three, distinguishing signs.

(a.) The first set of sounds requiring our consideration are the long vowels. The necessity of distinguishing long vowels from short in each of the Indian languages cannot be disputed. This is a necessity to which the Roman character must bend. All that is required, however, to meet this necessity is to mark every long vowel with an accent. It will then be understood that every accented vowel is long, every unaccented one short. The sign used for this purpose may either be the sign of the acute accent, as *á* or that of the circumflex, as *â*, or the ordinary prosodial sign of length, as *ā*. This point should be settled by practical printers. For cursive writing, I suspect it will be found that the last of the three signs, the simple horizontal line is the easiest.

The only condition for which I would stipulate is, that the accent or sign by which a vowel is made long shall not be used for any other purpose. This appears to me to be a fatal objection to

Prof. Monier Williams' use of the acute accent as the sign, not only of long vowels, but of the first *s* of the Sanskrit sibilants, e. g. *dar'si*. A dot over the *s* and a horizontal line or acute accent over the *i* would involve no perplexity.

The Sanskrit vowels *ri* and *ri*, the vowel *lri*, which is found in only one word in the language, and *lri*, which never occurs at all, may safely be dispensed with. The difference between the so called vowel *ri*, and the syllable which is composed of consonantal *r* and *i* is more a fanciful than a real one, and so far as it is real, it consists merely in a slight peculiarity in the pronunciation of *i* after *r* in certain words. It does not appear to me that any distinguishing sign is required; the ordinary characters *r* and *i* will suffice. Williams distinguishes this vowel *r* by a dot underneath. The abandonment of the dot in this connection will enable us to represent in this manner one of the peculiar *r*'s of the South Indian languages.

Thus, the help of a single simple, unmistakeable sign enables the Roman character to express each of the vowel sounds of the Indian languages. Certainly none of the Indian systems can vie with this in simplicity. In Tamil alone there are 17 different signs of length employed for distinguishing the long forms of the five simple vowels!

(*b.*) The second class of sounds for which the Roman alphabet requires to make some special provision, is that of the "cerebral" or lingual sounds. These are the *t*, *th*, *d*, *dh* and *n* of the third row of Sanskrit consonants, with the corresponding letters in the other Indian alphabets, to which I would add the peculiar *l* or *rl* of the Vedas and the Dravidian languages, and the harsh lingual *r* of the same family of tongues.

The six lingual consonants differ from the dentals, the consonants of the next row, only by a certain peculiarity of pronunciation. The most natural way of distinguishing them from the dentals would be by adding to them some distinguishing mark, and this distinguishing mark should be affixed in the same way to them all. Instead of adopting some such plan as this, the Indian alphabets use two totally distinct sets of characters, thereby in-

creasing the number and complexity of the alphabetical symbols without any necessity.

The method of distinguishing the corresponding lingual sounds of the Ostiak adopted by Castrén, was to append to the ordinary Russian character a little hook or tail. Sir W. Jones distinguished these letters by an acute accent affixed to one side, e. g. *t'a*. The method generally adopted of late is that of placing a dot *underneath*, which seems to be the easiest and best method of accomplishing the object in view; and if, as I propose, no other dots or marks are placed beneath the lines except those which denote lingual letters, no practical difficulty can arise.

I have added to this list of letters dotted underneath the hard lingual *r* of the Dravidian languages. I distinguished this in my Comparative Grammar by the large *R*, but this plan would preclude the use of the character as the capital of the ordinary *r*. Mr. R. Anderson denoted it by a double *r*, but this would lead to confusion, and would render it necessary to represent the double form of this character, which is very common in Tamil, by *rrrr*! As the sound of this *r* bears nearly the same relation to the ordinary semi-vowel *r* that the lingual *t* does to the dental, being originated by a peculiar twirl of the tongue, it appears to me that the best plan will be to class it at once amongst the linguals, and to distinguish it like them, by a dot *underneath*.

(c.) The Tamil and Malayalam have a deep lingual *r* to which I should here refer. This is pronounced in some districts like *zḥ* or *rzḥ*, in others exactly like the lingual *l*, but the most classical pronunciation of it closely resembles the sound of *r* in the English word, "tar." I regard it therefore as a species of *r*. It has been suggested that *z*, having no place in the Indian alphabets, might be used for this purpose. *Z*, however, will be required for Hindustani. The ordinary Roman *r* being required for the equivalent Indian letter, I propose that this peculiar South Indian *r* be represented by *ṛ*, with a dot *above*.

(d). We now come to the nasals, including *Anusvāra*, a class of sounds which involve more difficulty than any others.

The consonantal nasals *n*, *ṇ*, and *m* present no difficulty; the

difficulty relates to the first two consonantal nasals, which are commonly transliterated by *ng* and *nj*, and to *Anuswāra*.

(a). I begin with *Anuswāra*: This is the character which in Sanskrit, and in all other Indian alphabets except the Tamil, is used in certain conjunctions as the common representative of *all* nasal sounds. It is sounded like *ng* before gutturals, like *nj* before palatals, like *ñ* before linguals, like *n* before dentals, like *m* before labials and at the end of certain words ; and before *h*, where it is most appropriately used, its sound is nearly that of *ng*.

In reality this character is not at all required, the great latitude of sound which is accorded to it perplexes, instead of simplifying the alphabet, and each of its sounds might with great advantage be represented by the consonantal nasal which is equivalent to it. The substitution for it of the consonantal nasals is indeed to a certain extent optional in all the Indian alphabets, and what is optional in other languages is the rule in Tamil. The Tamil rejects *Anuswāra* altogether, using the consonantal nasals instead, and gets on perfectly well without it. The *best* course would, I have no doubt, be to follow the example of the Tamil in this matter ; as however the scheme now advocated is that of substituting the Roman *characters* for the Indian, leaving Indian modes of spelling untouched, the second best course is to provide a representative for *Anuswāra*, which shall be used with the same latitude until people learn to lay it aside. As we are not allowed to change about from *n* to *m* as circumstances seem to require, but must keep to the same letter throughout, it appears to me that *m* is the most suitable character to be used, to be distinguished from the consonantal *m* by a dot *above*. People will learn in time to lay aside the dot where it is not required, as at the end of neuter nouns.

(b). The nasal of the guttural row of consonants which is pronounced like *ng* in English may best, I think, be transliterated by *ñ* with a dot above. This is the best representative of the *Anuswāra* before each *h* and of the obscure final *Anuswāra* of Hindi words. In those instances people will naturally prefer *ñ* to *m*, and that will help forward the abandonment of *m̐*. The objection to

the use of the English *ng* as the representative of the guttural nasal is that it is a double consonant. The *n* alone will be found to be quite sufficient, with the addition of a dot, seeing that it will always be followed, except in a very small number of instances in Tamil, either by *k* or by *g*. Even the dot, indeed, may be dispensed with in time.

(c). The nasal of the palatal row which includes *c* and *j* has commonly been represented by *nj* or *jñ*. The use of double letters, however, for transliterating single ones is objectionable. This sound must be represented by *n*; the only question is, how is this *n* to be distinguished from others?

The Germans sometimes represent it by *m* with the addition of the Spanish nasal sign, sometimes by *n* with the same addition, sometimes simply by *n*. Where this letter is followed by *ch* or *j*, *n* alone might suffice, but it will require some distinguishing mark when it is used, as in sometimes is in the South, as an initial. I therefore suggest the use of the Spanish nasal sign with *n*; ex. gr. *ñ*.

This will only be required, however, when it is initial. I fully anticipate, indeed, that in due time people will lay aside the greater number of these marks and dots, when they find that they can be dispensed with, as I believe they often may, without inconvenience; *n* alone will be found sufficient in time for every nasal except *m*. In cursive writing, and even in print, a horizontal line over the *n*, e. g. *n̄* will sufficiently represent the Spanish nasal sign.

(d.) The half *Anuswāra* of the Telugu does not appear to require any written sign. The *Anuswāra* itself may be used instead of it by those who wish.

(e.) The only letter that still requires to be provided for is the first of the three sibilants of the Déva-nāgarī. For this I would propose *s* with a dot above. The dot below is reserved for linguals, the dot above is therefore the best sign for those few other letters that require a distinguishing mark.

Visarga is quite sufficiently represented by a final *h*; *ardhākāra* by the English apostrophe.

The apostrophe will also be generally useful, in languages in which *sandhi* prevails, as the sign of elision.

NOTE.—It is desirable to make an observation or two here* with respect to the application of the Roman letters to Tamil. The Tamil wholly rejects the aspirated consonants of the Sanskrit, together with the separate aspirate *h* ; it rejects *Anuswāra*, and in the classical dialect it ignores *ś*, *śh* and *ṣ* ; but the chief peculiarity of its system is, that it rejects all the sonant or soft consonants of the Sanskrit and the other alphabets, and uses only the hard consonants or surds. Acting on this principle it rejects *g*, *j*, *ḍ*, *ḍ* and *b*. These letters, therefore, will not be required in the Tamil country, except in words belonging to Sanskrit or to any foreign language which are quoted as foreign.

Whilst the Tamil rejects the characters referred to, it does not reject the sounds which they denote, *k* is pronounced as *g* when it occurs singly in the middle of a word or after a nasal, as *k* at the beginning of a word and when doubled, and a similar rule applies to the other letters.

As this peculiar arrangement is not an arbitrary one, but one which springs from a law of sound that is characteristic of the language, it cannot safely be set aside on the introduction of the Roman character. For some time, at least each Tamil consonant must be transliterated exactly as it stands, irrespective of the sound it receives. Whenever the Tamil *k* occurs, it must be transliterated by the Roman *k*, and it must be left to the Tamil ear, as it may safely be left, to pronounce it soft, as *g* or *gh*, where it is so required. If this rule is not attended to, the popularisation amongst the Natives of the use of the Roman character will be seriously impeded.

For similar reasons, whenever the Tamil uses certain characters as the symbols of peculiar compound sounds, the exact equivalents of those characters should be used in transliteration, and no attempt should be made to produce the same result by means of any English combination of letters. Thus, as the Tamil uses *n* and the harsh lingual *r* as the symbol of the sound *ndr*, and double *r* as the symbol of a sound resembling *ltr*, we must be content with imitating the Tamil in this and transliterating those letters just as they stand. It will simply be necessary to explain to learners, as hitherto, how those combinations are to be pronounced.

We have now gone over the entire ground, in so far as the peculiarities of the purely Indian alphabets are concerned, and it is my impression that we have not met with any insuperable difficulty. If the change is impracticable, at all events the impracticability does not appear to consist in the impossibility of adapting the Roman characters to the Indian sounds.

The following view of the whole of the proposed modifications will show how few and easy they are, and how little trouble is involved in the plan.

PROPOSED INDO-ROMAN ALPHABET.*

VOWELS.

a, á; i, í; u, ú; e, é; ai (or ei); o, ó; au.

Anuswára ṁ (or ṇ). *Visarga* h.

CONSONANTS.

Gutturals, 'k, 'kh; g, gh; ṇ.

Palatals, c, ch; j, jh; ñ or ñ̄.

Linguals, t, th; d, dh; n.

Dentals, t, th; d, dh; n.

Labials, p, ph; b, bh; m.

Semi-vowels, y, r, l, v.

Dravidian do, r, r, l.

Sibilants, ś, sh, s.

Aspirate, h.

A very important advantage, as it appears to me, of the scheme exhibited above, is its simplicity. If it should be modified on further consideration, I trust it will only be for the purpose of making it more simple still. An accent to distinguish the long vowels and a dot variously placed for distinguishing peculiar consonants, cannot cause perplexity, and ought to be made to suffice. There are doubtless a few points of detail which require to be more fully

* NOTE.—Should the English names of the Roman characters be introduced, e. g. *ay, bae, aitch, el*, &c. ? By no means. The characters themselves stand upon a different footing from the names which happen to be given to them in England. The Indian modes of denominating the letters are better than the English.

considered, especially with reference to the necessities of rapid manuscript writing, but I do not think that any difficulty even in details will be met with, which might not easily be settled by persons acquainted with the subject.

I may here add that the plan of modifying foreign characters to enable them to express the sounds of the Indian languages is not a novelty, as appears sometimes to be supposed. The experiment has already been tried with a character considerably inferior to the Roman, and the result of the experiment is the character in which Hindústání is generally written. What is that character but Persian (originally Arabic), with the addition of certain symbols found to be necessary for denoting peculiar Indian sounds? It is not alleged that the Persian character cannot be applied to the Indian languages, or that its substitution, with certain modifications, is impracticable. The possibility of doing it has been proved by the fact of its having been done. *Solvitur ambulando*. It is only the substitution of the Roman characters for the Indian that is now regarded as impossible; and yet every one must admit, on the least consideration, both that the Roman character is preferable in itself to the Persian, and that the modification of the Persian which constitute Hindústání are far less easy, simple, systematic than the modifications of the Roman character which have now been proposed.

The following are the steps which I beg to recommend should be taken, for the purpose of introducing the plan now advocated, and which appear to me to be likely to be attended with success. I state them in the order in which I think they should be carried out.

1. The encouragement of discussion respecting the merits of the plan in general and questions of detail, by persons conversant with the Native languages.
2. The adoption by Government of such measures as are considered to be best adapted for the settlement of the details of the plan on a comprehensive principle.

3. The publication of a series of alphabetical sheets and elementary books in the various vernaculars, containing exemplifications of the working of the plan, and explanations, of points that may be thought likely to appear obscure to Natives.

4. The introduction of the plan, after these preliminary steps have been taken, into all schools supported by Government or receiving grants in aid, not in suppression of the Native characters.

By the time matters reached this point, the public mind would be prepared, I anticipate, for carrying the plan considerably further.

I have, &c.,
R. CALDWELL.

IDAIYANKUDI, TINNEVELLY, }
2nd May, 1859. }

To

SIR C. E. TREVELYAN, K. C. B.,

Governor of Madras.

P. S.—Since this paper passed out of my hands, I have been in correspondence on the subject with the Revd. G. U. Pope, whose talents and acquirements are well known in this Presidency, and as I find that he also is strongly in favour of the introduction of the Roman character, I presume that it will be found to have a larger number of adherents than I imagined.

In discussing details with Mr. Pope, I have adopted some of his transliterations, in preference to those which I had suggested; but as my object in preparing the preceding paper was, not to attempt to settle details, but to draw attention to the subject and to promote discussion, I have thought it best to leave every thing just as it was written.

R. C.

