question. The author thinks the times are out of joint; and he is grieved that so many men have difficulty in earning a living. "The benevolent heart," he says, "is tortured by the cruel deliberation of natural selection, with its inexorable logic." "Shall thousands of young men walk the streets of our cities with their high commencement - day hopes ever sinking, till despair and gnawing hunger throw over every noble aspiration, and drive them to lives of infamy or death by suicide?" The conclusion is, that, if the young were taught the methods of industry at school, they would afterwards have no trouble in earning their living. We expected, therefore, to find the author advocating the teaching of mechanical trades in the common schools, as many others have done. As a matter of fact, he doesn't advocate industrial training at all: he only advises that the methods of the various industries should be described to the students, just as objects in natural history are described, but without any manual practice by the students themselves. How this is to help them in earning a living, we are unable to see; but it is the sole outcome of Mr. Dinwiddie's pamphlet.

THE INTELLECTUAL MOVEMENT IN JAPAN.

EVERYBODY in America who knows at all that there is such a country as Japan in the far east ought to be aware by this time that great social changes have for a past decade or two been going on among us. And numerous books and articles on Japan which have appeared within recent years in America, ought to have made tolerably clear of what nature these changes are. Thoughtful persons must often have wondered from afar whether these reforms are permanent, whether the spirit of progress does not lag sometimes, whether the people who seem to be rushing on with a headlong pace do not at times look back with longing on their past. If such persons had taken the trouble to look into the matter three or four years ago, they would have discovered that their surmises were correct. At that time we seemed to have turned round suddenly in the path which we had been so eagerly pursuing. People had started with the idea that all things European were good, and all things Japanese were bad. As they went on trying one sweeping change after another, they began to discover naturally that there were many blots in the European form of civilization, especially as imported into oriental countries, and that many things Japanese

were not bad at all, but excellent, and even surpassed their European counterparts. This discovery, helped also, to some extent, by compliments, which foreign visitors are ever willing to pour on us, carried the people's feeling to the opposite extreme. They said to themselves, "We are not so very bad, after all. Why should we change? Let us have back our own familiar ways and things." The revival of old things became the order of the day. Chinese ethics began to be studied again with fervor, and the doctrines of Confucius and Mencius reigned supreme once more in the moral world. There was a revival of old Japanese literature and traditions. Women were to be brought up in the old-fashioned strait path: they were not to be allowed to catch hold of any new-fangled European ideas. Utai (a peculiar kind of singing) was heard again on all sides, and brought back old associations. Teachers of cha no yu (the art of making tea, including all the formalities attending its drinking, etc.) were in requirement on every hand, while masters of the Ogasawara school of etiquette bustled along with smiling countenances. The fashion was to give banquets in the old Japanese style, and restaurants à la europienne felt it to be very hard times. Young men were seen on the street, carrying about fencing-apparatus, — a sight not seen since the old feudal days. Schools of jū jitsu (a kind of wrestling) sprang up into existence by dozens. Various weapons of the saumrai which had been hung up in dark corners, again saw the light, and each claimed its own votaries. In short, all reforms seemed to be at an end for the present.

It must not be supposed, however, that all these carried us very far back. The backbone of old Japan — feudalism — had been shattered beyond all hopes of recovery; and, without that, things could not be made to work as in former days, however much minor matters might be patched up. Neither did people care to go back quite so Those who looked beneath the surface could easily see that this period of reaction could offer but a temporary check in the way of reforms, being comparable simply to the rest-stages observable during earlier developmental phases of many an animal. In fact, it proved to be of a very short duration. And who shall regret that there was just at that time partial retracing of the path we had been following, since it will prove to be the means of preserving many harmless arts and accomplishments peculiar to Japan, which might otherwise have been lost forever?

At the present time we may be said to be fairly in the midst of the second period of activity. We seem to be just as eager as ever to pursue the course of reforms; perhaps a little more so, for the short respite we have had. The reforms that were accomplished in the first period were in many respects but superficial and material, or concerned only larger affairs of state; as, for instance, the establishment of telegraphic and postal service, opening of steamship lines, reorganization of the army and navy, reforms in the method of administering justice or of managing schools. They have left the feelings and thoughts of people comparatively untouched so far; but such stupendous changes could not take place without producing profound effects on the national life. And the present aspect of things makes it seem likely that during this second period of activity there will be great transformations in the innermost life of Japan. There will come to be healthier and sounder views in regard to family ties; and some, at least, of the abuses which disfigure the domestic life, we may hope will pass away. Woman's position will be better, and the gentler half of the nation will gradually come to exert more influence in society. New ideas will penetrate even to the very hearth-stone - or, rather, will lead to the establishment of a great institution known as the 'hearth,' which plays such an important part, both materially and metaphorically, in the life of Europe and The result of all these and other America. reforms will be to draw the Japanese closely into the comity of nations, and to make us share the feelings and thoughts of the civilized world, and to let the civilized world share our thoughts and feelings. In the opinion of many, we shall surely go down, if we could not accomplish this: it is our only chance of survival in this world of keen struggle, which seems to be raging just now in this part of the globe with more bitterness than elsewhere.

Of the reform movements which have been started since the last period of reaction, none is likely to be more beneficial, or more wide-reaching in its effects, than the movement initiated by the Roman alphabet association (Roma-ji-kai). This society has for its object nothing less than a complete revolution in the manner of writing the Japanese language. It proposes to substitute the twenty-six letters of the Roman alphabet in place of Chinese ideographs now used. To understand the meaning of this movement, we must explain how Japanese has been and is being written. In more formal kinds of writing the classical Chinese style is adopted. Chinese ideographs alone are used, and sentences are constructed as in pure Chinese. A scholar of that country will have no difficulty in understanding it. It must not be supposed, however, that a Japanese reads this in the way a Chinese would. A sentence being

composed simply of a series of symbols, each of which stands for an idea, a Japanese translates it offhand, and reads it in Japanese, giving to each word its appropriate case-endings or inflections, which are not at all to be seen in the writing. This style of writing is now used much more sparingly than in former days. The most prevalent form of writing at the present day is a mixture of Chinese ideographs with the Japanese Kana syllabary; that is, ideographs are used to represent principal ideas in a sentence, and what might be called connectives are given in Kana. For instance: in the sentence, 'A dog killed a cat,' the main ideas conveyed by the words 'dog,' 'cat,' and 'kill,' are given in Chinese ideographs; while the particles that make the word 'dog' the subject, and the word 'cat' the object, of the sentence, are given in Kana, as well as the tenseendings of the word 'kill.' A small part of literature especially meant for the illiterate is in the Japanese Kana only.

Such being various methods of writing our language, it is absolutely necessary for a Japanese to learn a few thousands of Chinese ideographs before he can read or write at all fairly. And be it understood that to know the meaning of each character is not enough. To get at the complete natural history of an ideograph, one must first of all know, of course, its meaning or meanings. Then he must know the sounds which the Chinese gave to it. Of these, each character has at least two, - the sound it had when it was first introduced into Japan from Corea, the go-sound; and that which it had in a certain part of China when some Japanese visited it some centuries later, the kan-sound. Then he must know various ways in which this ideograph is written, — the printed, the 'cursive,' the 'grass' forms, - for, in writing, each ideograph is not generally given with its regular and full strokes, but is somewhat abbreviated. If there can be unreadable handwriting with only twenty-six letters to work with, imagine what it must become when there is a chance of mangling thousands. In addition to all this, every respectable person has to write ideographs with some degree of decency; with power and feeling, if possible, for penmanship almost amounts to painting, and does actually have, in the eyes of many, an equal value with it as an art. The simple task of mastering writing and reading becomes thus no mean one. If there were any proof needed of this fact, beyond the mere statement of the case, it lies in the fact that numerous as are the foreigners who have lived in Japan, and have fairly, or in some cases perfectly, acquired the spoken language, those who have mastered writing and reading can be counted on one's fingers.

When it is remembered that for a Japanese who wishes to keep abreast of the world, and to become acquainted with modern learning, the additional knowledge of at least one, or, if possible, of two or three, European languages is absolutely essential, thoughtful persons may well pause, and ask what time there is left for us for mastering many arts and sciences which go to make up modern life. In this world of keen struggle for existence, shall we not necessarily lag behind all other nations, if we are so occupied with mere symbols, and not with ideas themselves? That this state of things is most undesirable is admitted on all sides. In former leisurely days, when learning was a luxury in the hands of a privileged few, the harder it was made, the better. But we are now in the days of universal education, and what can we possibly accomplish with this clumsy and ponderous machine of bygone days? Clearly, something must be done, and this quickly. That such is the opinion held by all intelligent persons, there can be no doubt. The question is, what is to be done?

Some years ago a movement was started by which it was proposed to dispense with Chinese ideographs altogether, and to use the Japanese Kana syllabary only. The Kana-no-kai (the Kana association) was formed. The association has some three or four thousand members, and has done very good and earnest work, although, of late, eclipsed to some extent by its younger sister, the Roman alphabet association.

If the Kana alphabet alone should be used, it would certainly be a great improvement on the present method of writing Japanese with Chinese ideographs; but, in the opinion of many, the Kana is not equal to the demands of modern life. Springing originally from Chinese ideographs, it partakes somewhat of their clumsiness. A printed page of Kana is frightfully monotonous; there are no strokes that project out above or below the average width of letters; and taking in a word at a glance, without going over its component letters, is rather difficult. Again: although phonetic to some extent, spelling in it is really as bad as that of English words. There are many ways of writing down the same sound, and to know how a given word should be spelled becomes very difficult. For instance: there are eight different ways of writing the sound $K\bar{o}$, the same number of ways in writing \bar{o} , four ways of putting down the sound $m\bar{o}$, five ways of writing $r\bar{o}$, etc., and these are by no means exceptional cases. Think of the word chō-chō being written tefu-tefu. It is very difficult to write a scientific treatise in Japanese, anyway; but it is doubtful if it is possible to do so

in *Kana* at all. The few attempts that have been made so far must be pronounced failures. The *Kana* alphabet has no doubt the merit of being known almost universally, and it is certainly at the present day the best vehicle of propounding simple ideas to the masses. But unless radical reforms are carried out in the method of writing in it, and several more symbols are newly added, it is not, in my opinion, equal to the demands of modern civilization.

The Roman alphabet has, on the contrary, all the facilities of the Kana, and possesses several additional advantages besides. Its twenty-six letters are very easy to learn, and its adoption will make reading and writing a very simple task; in fact, almost nothing compared with the present method of using Chinese ideographs. It will, of course, cause education to spread wider. It will save several years in every schoolboy's life. Those which he has to spend in the drudgery of learning how to read and write, he will be able to give to acquiring solid ideas of modern knowledge. The adoption of the Roman alphabet will also make the introduction of scientific terms and symbols into our language very easy. They have simply to be transferred bodily, with only such changes as the nature of our language makes imperative. Think what this means in mathematics, physics, and chemistry, or in writing down the scientific nomenclature of zoölogy, botany, and mineralogy. Geographical names and other proper nouns can be put down accurately, and not in imperfect ap-Last but not least, the Roman proximations. alphabet being the one in which the literature of the civilized world is written, familiarity with it will make the acquisition of European languages comparatively easy; and, if Japanese be written in it, foreigners will have no difficulty in mastering reading and writing our language, - a task which they find now so utterly impossible. Thus the adoption of the Roman alphabet will help us to know others, and help others to know us. In short, it will make us kin with the rest of the world.

All this has been reasoned out time and again by persons who gave thought to the subject. But the stupendousness of the task of revolutionizing the whole written language of a nation deterred any from taking practical steps, and it is a matter of doubt whether any such attempt made before its own time would not have been laughed down. But when the period of reaction referred to in the beginning was over, and the march of reforms was resumed with as much eagerness as ever, the time seemed to many to have come for starting the movement of introducing the Roman alphabet as the means of writing our language. Every

thing seemed ready, especially as the *Kana-no-kai* (the *Kana* association) was already in the field, and making the urgency of radical reforms in the mode of writing a familiar idea to everybody.

The Roman alphabet movement originated principally within the University of Tokio. The first meeting for the purpose of organizing an association to carry on the movement was called on Dec. 2, 1884, at which seventy persons were present. The work of organization was completed early in the following January. A committee of forty, including several well-known foreign scholars, was then appointed to draw up a scheme of transliteration (adapting Roman letters to our sound). As Japanese does not contain any very peculiar sound, this task was comparatively easy, although it was not until after some heated discussion that the committee could come to a decision. committee, wisely it seems to me, seized on what was already in vogue, - for of course Japanese had been written with the Roman alphabet before this, - and fixed it into a convenient and simple scheme. The system adopted is very much like that of Dr. Hepburn, the venerable American missionary who published some years ago a Japanese-English dictionary. With the completion of a transliteration scheme, the Roman alphabet association, or Roma-ji-kai, as it called itself, was in fair working-order. Its publications, setting forth its objects or explaining its scheme of transliteration, were cast broadside. The association was received with enthusiasm, and was a great success from the first. In June, 1885, — that is, six months after its organization,—its members numbered 2,904 persons; in December of the same year, 6.202 persons; and at the present date of writing. the membership is about 7,000. These belong to all parts of the country, and are from every station in life, from cabinet-ministers to storytellers. In the first meeting, held in December, 1884, there were present only 70 persons. In the general meeting, held in January of the present year, the large Central hall of the Engineering college in Tokio was filled. At least 1,200 persons listened to interesting addresses made on that occasion by Count Inouye, the minister of foreign affairs, and by the Hon. F. R. Plunkett, the English minister in Japan. The association publishes a monthly magazine, named Romaji Zasshi, and distributes it gratis among members. It contains essays on all sorts of subjects by well-known writers, besides the transliterations of extracts from popular books. In it the entire practicability of writing Japanese with the Roman alphabet has been demonstrated. The association is also having a Japanese dictionary compiled.

Some of the newspapers make a practice of

printing a small part of their issue in Roman letters, and thus aid in familiarizing people with it. In some provinces local societies have been organized to cultivate the use of the Roman alphabet.

The movement is likely to make its way fastest among scientific publications. Already the Tokio physico-mathematical society publishes its proceedings in the Roman letters.

Stupendous as is the task which the Roman alphabet association has before itself, its friends are sanguine that it will accomplish its purpose. The prospects are very favorable in every respect. For instance: the Department of education some time ago sanctioned the teaching of English in primary schools. The knowledge of English, of course, implies the knowledge of reading and writing Japanese in the Roman alphabet. Let the Roman alphabet be taught in public schools, and in a generation or two we shall have accomplished the desired reform. If the change were toward any thing very difficult or disagreeable, it might be hopeless. As things are, however, the prospects are very bright.

From the first, foreigners have been in favor of the movement, and have furnished some very useful and active members. Altogether several hundred, including diplomatists, editors, missionaries, teachers, scientific men, are enrolled in its membership list. The association has also received pleasant recognition abroad from newspapers and societies. Conspicuous among this stands the action of the London philological association. At the meeting held Dec. 18, 1885, that learned body passed a resolution of sympathy with the Roman alphabet movement in Japan, moved by Dr. Furnisvall, and seconded by Professor Skeet, the president, and Henry Sweet, the philologist.

The Roman alphabet association has thus accomplished a great deal in one year of its existence. As in all similar undertakings, it suffers from lack of funds. This alone limits the sphere of its activity and usefulness. K. MITSUKURI.

Tokio, April 23.

THE AMERICAN CLIMATOLOGICAL ASSO-CLATION.

The third annual meeting of the American climatological association was held at the College of physicians, Philadelphia, May 10 and 11, Dr. William Pepper presiding. The opening address of the president was devoted to the subject of the distribution of phthisis in Pennsylvania. The president reviewed the results of similar investigation by Dr. Bowditch in Massachusetts. Dr. Bowditch had found a remarkable correspondence