and Hebrew enabled this diligent student very quickly to acquire a sufficient knowledge of Chinese to begin his bookselling. In fact, in the first four months, he actually learned to recognize, at sight, two thousand of the bewilderingly intricate Chinese ideographs, or written characters. Between 30,000 and 40,000 of these are to be found in the writings of Confucius, which embody practically all the learning of China. Before one can read a very simple book in Chinese, such as the Bible, he must be able to recognize at least four thousand of the ideographs. It need scarcely be said that the vast majority of the Chinese never attempt to learn to read, still less would they dream of learning to write. As in the early days of the Church, we may ask incredulously, "Have any of the rulers of the people believed?" The vast majority of Chinese converts to Christianity are quite illiterate, so that about 95 per cent. of the Christian men, and all of the Christian women, are unable to read, and can only join in hymns which they have learned by heart. They receive instruction only as they listen to what is read or preached in the mission churches -few, indeed, can carry home books from which to read for the edification of themselves or their neighbors. From this we can understand something of the importance of the invention of a system so very simple that the most illiterate, both blind and sighted, can learn both to read and write in less than three months—many have done so in half that time. The extraordinary simplicity of the system is due to the fact that it was evolved in two distinct stages, the first being only for the use of the blind.

There are in China a lamentable number of these blind, owing to the prevalence of leprosy, small-pox, ophthalmia, and general dirt. In the streets of all Chinese cities it is a common thing to see a dozen or more blind men and women, walking in single file, the blind leading the blind, making a hideous noise with cymbals and other discordant instruments, in order to extract infinitesimal coins from the deafened passengers or shopkeepers, who pay this tax to induce the unsightly and noisy procession to move on.

The majority of the adult blind are the most degraded of the population, but occasionally one came to Mr. Murray wishing to buy a portion of this "foreign classic of Jesus." When Mr. Murray asked, "What is the use to you of a book which you can not see to read?" the answer was: "If I have the book, perhaps some day some one will read it to me." Mr. Murray told them how, in Europe and America, blind people were taught to read for themselves, but, naturally, he seemed to them as one that mocked. From that time, however, he never ceased to yearn for some way in which to help the blind, and made it his ceaseless prayer that he might be guided how to do it. He had need of truly God-given patience, for eight years elapsed ere he arrived at a satisfactory solution, and during all that time he was ceaselessly selling, to the few who could read them, books printed in the intricate Chinese characters.

Ere leaving Scotland Mr. Murray had studied Moon's system of raised alphabetic symbols for the blind, but as musical notes can not be represented by this type, he saw that it could never satisfactorily render the amazingly fine gradations of sound which form the tones, so maddening to the foreigner seeking to learn Chinese. But in the London Mission, where he lodged, was a little girl who had been born blind, and for her books were sent from England in Braille's system of embossed dots. This system expresses fine gradations of sound so clearly that the most complicated music can be written for the blind. By taking a group of six dots, and omitting one or more at a time, sixty-three symbols can be produced. By means of these can be represented the twenty-four letters of the alphabet, which so accurately express the forty-one sounds of the English language, and the remainder of the sixty-three may be used to denote punctuation and musical notes. But as the Chinese have no alphabet, the first step toward a solution of the problem was when Mr. Murray realized that, although there are over 30,000 Chinese characters, there are *only four hundred and eight sounds* in Mandarin Chinese the language of about three hundred millions of the people. But Braille provides only sixty-three symbols, how then could these be made to represent four hundred and eight sounds?

There was then vouchsafed to this patient seeker after the Lord's guidance what he recognized as a divine revelation. In the broad noonday, while resting from his long morning of exhausting toil among noisy Chinese crowds, he seemed to see a great scroll outspread before him, and covered with Braille's embossed dots. The thought seemed to be flashed into his mind, "*Make these dots represent numerals, and number the sounds.*" There, in a nutshell, lies the whole secret. The same group of dots, differently placed, are used to represent units, tens and hundreds. Thus, symbols representing the numbers 1, 2, 3, 4, 5, 6, 7, 8, 9, 0, stand for units; any two of these symbols (e.g., 4 and 0 = 40), represent tens; and any three symbols (e.g., 4, 0, and 8 = 408), stand for hundreds. Thus it becomes a very simple thing to represent any numeral.

Mr. Murray next numbered the four hundred and eight sounds of Mandarin Chinese. 1 stands for *Ah*; 2, for *Ai*; 3, for *An*; 10, for *Chan*; 100, for *'Huad*; 400, for *Yung*; 408, for *P'ou*. This last sound, which is represented by the highest figure required, has a symbol as surprisingly simple as any of the others. Then, as an aid to memory, Mr. Murray arranged 408 doggerel lines, connecting the numeral with the sound—somewhat as children say:

"One to make ready,
Two to prepare;
Three to be off,
Four to be there."

The Chinese are all gifted with very retentive memories, and they have no difficulty in rapidly memorizing these lines. Thenceforth they find that the touch of the dots representing any numeral instinctively suggests the corresponding sound, just as in our own language the sight of a certain letter of the alphabet suggests a certain sound.

Great was Mr. Murray's joy when his years of patient, ingenious toil were thus crowned with success. His first four pupils were miserably poor, ignorant street beggars, whom he brought to his own lodgings, that he might feed and clothe them, and isolate them from contaminating surroundings. But even these unpromising pupils were able to read and write fluently *in three months*.

Until about the year 1890 only Mr. Murray's work for the blind was mentioned. Then came the second stage in what he loves to call his revelation, namely, his adaptation of the self-same system for the use of sighted persons. Some said to him, rather in "chaff," "What a privilege it is to be blind, and to learn to read and write in three months! Why don't you do something