

## Letter from Alexander Graham Bell to Alexander Melville Bell, February 22, 1874, with transcript

Salem, Mass., Feb. 22d, 1874. My dear Papa,

Our meeting with the Trustees of the Blind Asylum was one of the greatest successes that V.S. has yet had.

I had prepared (after a great deal of experimenting in raising letters) upwards of 400 cards each containing an embossed symbol. Everything necessary for illustrating the system practically was in readiness. I enclose specimens of the cards and holders that you may understand the whole thing.

Dr. Howe was to have been there. Indeed the meeting was delayed for a week at his special request. He is still however so ill from Pleurisy that he was unable to put in an appearance. Mrs. Julia Ward Howe was present however, and was much interested.

I carefully avoided the subject of a conflict with existing alphabets , and commenced by saying that the Line Alphabet was to serve special purposes, and need not interfere with their ordinary one.

Two objects had to be kept in view. (1) To enable the Blind to receive information from books; and (2) to enable them to impart information to others by means of writing .

I thought that these two objects had been confounded 2 together. If we wish the Blind to be independent of assistance from seeing people in reading books, our characters should (1st) represent the only language known to a blind man — the spoken tongue — that is the words should be spelt phonetically , and 2d That characters should be employed which could readily be felt by a blind man.

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It was no matter to a blind man how a word was spelled it was how it sounded that was important to him. It was again no matter to a blind child what a letter looked like — it was how it felt that was important.

In teaching a child to write however it would be advisable to teach it the ordinary orthography , as people generally associate phonetical spelling with ignorance . Hence there would always be a use for the books and alphabets at present in use in their asylum — viz — as a means of accustoming pupils to the orthography of our language for the purpose of writing correctly.

While then they might issue a certain number of volume in the usual way for this purpose — I urged the use of the Line-Alphabet as the ordinary type for the great majority of their books — for the following reasons.

### **On the score of**

1. Simplicity.
2. Universality.
3. Economy.

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### Simplicity .

I offered to prove that any blind child of ordinary capacity could read from the raised symbols in a few days , and illustrated the point by getting Miss Junes who had had no special facilities for Tactile reading, to read English words dictated by those present, from the raised symbols, by the sense of touch . The result a perfect success. Words dictated “Composition, Physiology, Dundreary”. 4?

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### Universality .

The English Blind could learn the pronunciation of foreign Languages from the symbols, and could read understandingly works written in the foreign languages — they could speak .

So also — the foreign Blind who could talk English, could at once read works published in the new type without the necessity of learning the orthography of our language .

The only alphabet yet brought forward for the Blind, that had the remotest chance of being universal.

Universality illustrated by the representation of foreign words, clicks, and invented noises, which were successfully read by Miss Jones by the sense of touch .

### Economy .

After studying the subject — I thought this 4 point of Economy so important that I saw the necessity for an alteration in the symbols .

In the alphabet, as I presented it to the Trustees, the Point-Tongue Elements were represented by vertical lines instead of horizontal — and the horizontal lines were given as Lip-Letters. I trust that when you know the reasons you will approve of the change. In an investigation of the Frequency of the Element sounds I have just completed for the assistance of artic Teacher of the D. & D. — I have found that Point Tongue letters constitute as much as 74 per cent of all our consonants. Hence the vertical lines, as taking up less space than the others, were the proper representatives. If we apply your principle of contraction and omit vowels , showing their places by the lengthening of the consonant line — really little space would be gained if the point-tongue elements were represented by horizontal lines, for the prolonged consonant would take up about as much space as consonant & vowel written in full. The vertical line is as great an advantage for the blind ,

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as the horizontal line is for shorthand reporting. I found it made so much difference in the space that I took the liberty of making the change without consulting you.

Before the Trustees I quoted from the 1868 Report of the N.Y. Institute for the Blind — an investig. 5 concerning the ratio between letters and sounds.

Words had been investigated containing altogether 30,828 letters, and it was found that they contained only 25,651 sounds, or 16.7 percent less than the number of letters.

Attention was then directed to the peculiarities of the typography of the Line Alphabet. Horizontal lines would require types the same size as those employed at present.

Oblique lines required types only # as large, and vertical lines & vowels only one third the size. As Point tongue letters and vowels occurred more frequently than the other elements — Sentences written in the raised symbols would take up less space than if the types were all of the usual size .

If the principal of contraction were employed, the types for Point tongue letters would take up no more space in their elongated form than when they were written small; and, as they constituted 74 per cent of all our consonants the saving of space would be so immense that I hazarded the opinion that works printed in this way would occupy less than a third of the space occupied in their present books.

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I took up a sentence from one of their books and found it to contain 58 letters.

In their way it required 58 characters.

In Full Phonetical writing there were needed 62 characters.

In the contracted form 33 characters.

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In the contracted form then only half the number of types would be employed, and the space would be reduced by one half if the types were all of the usual size. But 74 per cent of them would be only one-third the usual size so that an immense gain would result.

Economy would then dictate that the vast majority of works produced should be in this type, and that the other should be principally used as a means of teaching orthography .

One or two of the Trustees were quite excited and hazarded the remark “Why not throw overboard the old type?” I replied that that was a question to be settled by teachers of the Blind. That we brought forward the alphabet for special uses — and that it need not interfere with existing methods of printing for the Blind.

The Trustees came up one by one, shook me warmly by the hand, stated that they were so overwhelmed by what they had heard and seen, that they could say nothing, but that I should hear from them again soon .

With much love Your affectionate Son Aleck.