

Letter from Alexander Graham Bell to Mabel Hubbard Bell, April 5, 1879, with transcript

Alexander Graham Bell to Mabel (Hubbard) Bell. Fifth Avenue Hotel, N. Y., April 5th, 1879.
My sweet darling wife:

It was refreshing to see two letters in your handwriting waiting for me to-day — and doubly refreshing to read the contents. Naughty Elsie! Why don't you reason with her?! Explain to her the extreme importance of her keeping still and looking her very sweetest and prettiest — if she wishes to go down to posterity as a respectable and well behaved baby! Tell her to think she sees her Papa before her and won't that make her look nice! Tell her that if she is very good I will show her a beautiful picture of her Mama when she was a baby which I have here in my possession and perhaps that will quiet her. I am very glad you are all so pleased with the beginning of the picture. Fascinate your artist as much as you can — lay regular siege to his heart — in order that those beautiful eyes and sweet face that I value so much may grow out of the canvas — and be fixed for ever. My sweet wife I want to see you so much — I wish I were an artist. My goodness! Wouldn't I paint a picture that would astonish you! Why you wouldn't recognize yourself one bit! Unless indeed my dear you were to look at it with my eyes! Elisha Gray is testifying beautifully and his solicitors look grave. Poor Mr. Gray I feel sorry for him — for I feel sure he would never of his own accord have allowed himself to be placed in the painful position in which he now is — that is upon the supposition that he is an honourable man. It now appears that he never even attempted to make the apparatus shown in his caveat until long after he knew of 2 my patent — and until after he had read my paper read before the Academy of Arts and Sciences and until after he had heard my telephone at the Centennial Exhibition and that even then his experiment was unsuccessful. I could not help thinking during his examination of the unjust words of Prescott in his Introduction to his book on the Telephone where he attributes to Gray the invention of the first speaking Telephone —

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and speaks of him in consequence as one of those “investigators in Science who have discovered new truths — who have ascended from Nature to Nature's God — who have traced out some of the secret links that bind together humanity and the Supreme Being in one common chain” etc.

Is it not impious for such a man as Prescott to use the name of the “Supreme Being” in this way — In a Book too the subject of which was to distort and suppress the truth — so that the inventor should be deprived not only of the pecuniary rewards of his labours but even of the bare honour of his discoveries — and of his very reputation itself.

But to pass from disagreeable subjects to other things — I am full of new ideas.

Oh! Mabel dear — please please PLEASE (that's copied from you) make me write. Make me describe and publish my ideas that I may at least obtain credit for them and that people may know that I am still alive and working and thinking. I can't bear to hear that even my friends should think that I stumbled upon an invention and that there is no more good in me. You are the mistress of my heart and the sharer of my thoughts — (Haven't I become poetical!) — so I send you a few ideas — as they have come to me — to be added upon my return to the list of my unwritten inventions and to be written out for publication by US my dear!

1. New form of Magnetoscope invented April 2nd, 1879. Suggested by the ordinary gold-leaf Electroscope and by reflections upon Mayer's article upon “Floating Magnets” published in an old number of Nature.

To the extremity of a soft iron rod suspend two delicate fibres of soft iron. Insert the arrangement into the neck of a bottle so that the soft iron rod forms its stopper. The mode of suspension is shown in Figs. 1, 2 and 3.

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Upon bringing a permanent magnet near the Magnetoscope the soft iron rod becomes a magnet by induction and the soft iron fibres repel one another — the amount of divergence forming an index of the magnetic power of the inducing body.

Should the weight of the soft iron fibres render the instrum. insensitive — fill the bottle with some liquid which would take off a great deal of the weight of the fibres.

2. Another idea which is of more practical value is a new method of deep sea sounding.

This has been developed out of the suggestion of Mr. Howe to speak through water. That idea immediately suggested to my mind a submarine Fog-horn. Sound travels so much faster through water than through air that it is probable that a Fog-horn arranged so as to cause a vibration of the water instead of air could be heard at a very great distance by a submerged ear — or what comes to the same thing — by means of a submerged apparatus. This has recalled to my mind the submarine microphone I devised some time ago and the suggestion of Prof. Hilgard to utilize it in deep-sea sounding by dropping a shell into the water which should explode on reaching the bottom and then noting the time taken by the sound to reach the surface. This last night suggested an essentially new idea of very great practical value. There must be echoes in water as well as in air — and if a sound were made in the water at a short distance from the surface — the sound would travel to the bottom — be reflected up — and reach the submerged ear (or apparatus) after a longer or shorter time as an echo of the original sound. The computation of the depth would be easy when once the velocity of sound in water is known. If I remember rightly sound travels about 4400 feet in one second through water.

Now suppose that the echo of the submarine noise reaches the submerged ear exactly one second after the original sound had been made — then the distance from the surface to the bottom and back again would be 4400 feet — and the depth would be just one-half of that i. e. 2200 ft.

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I cannot write any more tonight. Good night and pleasant dreams. Love to Mary — X to Gertrude — X Berta.

Your loving husband, Alec. Mrs. A. G. Bell, 1509 R. I. Ave., Washington.