I think I have clearly in my mind the proper theory of constructing a loud telephone & the most powerful utilization of the whole voice to produce the maximum change of resistance. It is this. Use a hard button of Carbon crosshatched to give innumerable points. Have this button 2 to 4 inches in diameter resisting on a hard metallic surface connecting with one pole—over the button have soft yielding sheet such as a chamois, Oiled Cotton etc faced with platina foil or Carbon paper foil—secure the edges only to prevent moving but do not stretch in the least; let it lay dead on the button. Now have a very low resistance primary & talk direct to the soft sheet, the strength of the sound waves is the same in every part of the soft armature hence unlike a diaphragm equal pressure will be placed in every part of the Carbon & the whole power of the voice used to make the initial contact, while with heavy foil or diaphragm the pressure is great at one spot, but one does not get the full benefit of all the pressure as the Carbon makes its greatest change on the first part of the wave doubling the pressure scarcely makes $\frac{1}{5}$ change further & so on while with my arrangement the first initial sensations of the Carbon only is used.

〈Didnt turn out so well as expcctd Oct 11 1884〉

very thin Carbon—

much finer than this 80 @ 100 to inch.
October–December 1884

TAE

J. F. Ott


1. See Doc. 2743 (headnote).

2. Figure labels are “foil,” “chamois— or oiled silk or Cotton i.e. Linseeded—,” “metal,” and “Carbon.”

—2745—

Theodore Vail
Memorandum to American Bell Telephone Co.
Executive Committee

Boston Oct. 15th 1884

Gentlemen,

In accordance with your wishes, I had an interview with Mr. Edison when last in New York. After a long consultation, Mr. Edison finally agreed to the following as an arrangement that he would be willing to make:

He would give about half of his time to the Co. to be paid therefor $6000.00 per annum. He has a Laboratory, the expense of which is as follows:

four buttons in Series—