

nation, for a few moments, in viewing science prospectively ; that is, in predicting from its past history its future triumphs. But I am admonished that your patience has already been severely taxed, and can, therefore, only allude to a very few prospective applications of science to the welfare and happiness of society.

Notwithstanding the wonders which steam is accomplishing in our day, whoever will compare the description of the first steam engine invented by the Marquis of Worcester, in 1663, with those which now sweep with giant strength over land and sea, will be satisfied that it has still greater triumphs to achieve. But the chemist is conversant with several agents of analogous character, but of far greater power ; and he cannot but confidently expect that the time is not distant when some of these will take the place of steam ; because safer, more powerful, less costly, and more easily managed. Indeed, I know of but one thing, and that is the resistance of the air, that will prevent the attainment of a velocity by the locomotive and the boat indefinitely greater than that now attained.

If a lecturer twenty years ago had predicted what is now daily witnessed in hundreds of electric telegraph offices, he would have been looked upon as a visionary dreamer. I well remember how I trembled for my reputation as a sane man, when I uttered the following sentence, in a lecture written about the time of the earliest experiments with the telegraph by Professor Wheatstone in England, and Professor Morse in this country : " There is every reason to believe," I said, " that by Professor Morse's telegraph, which he has already tried over an extent of a mile or two, information will be conveyed as fast as a printer can set up types. So that were such a train laid between Washington and this place, [Salem,] the president's message, or any interesting speech, might be