

A WORD THAT HATH BEEN—A SOUND WHICH EVER LINGERS.

BY GENERAL HORATIO G. GIBSON, U. S. A.

FIFTY-EIGHT years ago, the writer attended the commencement exercises of a Catholic college in the city of Baltimore, and had the pleasure of hearing the address delivered on the occasion by that accomplished writer and gentleman, the late Joseph R. Chandler, of Philadelphia, in which he advanced, upon the authority of an eminent scientist, the theory that the waves of sound produced by the human voice never ceased to vibrate and pulsate the air and space; that every word uttered or thought expressed would be preserved among the last syllables of recorded Time. This theory as strange as fascinating, and though old as the days of Chaucer new to the writer, elaborated by Mr. Chandler with graceful felicity, made an indelible impression, and has furnished food for thought in many a leisure hour. A quarter of a century later, it was vividly recalled in reading the delightful essays—"Among My Books"—by the late William B. Reed, also of Philadelphia.¹ More recently, the writer came across an allusion to the theory by Thackeray in his introduction to the last—an unfinished work "Emma"—by the late Charlotte Bronte :

"Is there any record kept anywhere of fancies conceived, beautiful, unborn? Some day will they assume form in some yet undeveloped light? If our bad unspoken thoughts are registered against us, and are written in the awful account, will not the good thoughts unspoken, the love and tenderness, the pity, beauty, charity, which pass through the breast, and cause this heart to throb with silent good, find remembrance too? A few weeks more and this lovely offering of the poet's conception would have been complete to charm the world with its beautiful mirth. May there not be some sphere unknown to us where it may have an existence? They say our words once out of our lips, go travelling in *omne ævum*, reverberating forever. If our words, why not our thoughts? If the Has Been, why not the Might Have Been?"

¹ *World's Essays*—"Among My Books," New York: E. J. Hale & Son. 1871.

May not the gifted Byron have caught a glimpse of the startling theory when he wreaked his thoughts upon expression in the following stanza :

“But words are things ; and a small drop of ink,
 Falling, like dew, upon a thought produces
 That which makes thousands, perhaps millions think ;
 'Tis strange, the shortest letter man uses
 Instead of speech, may form a lasting link
 Of ages ; to what straits old Time reduces
 Frail man, when paper—even a rag like this—
 Survives himself, his tomb, and all that's his.”

This kindred idea of the great poet—the survival of the written word—is found embodied in an ancient Coptic prayer : “And there is no scribe that shall not pass away, but what he has written will remain forever,” and finds like apt expression in a quotation given by Mr. Reed in two of his essays from the writings of William Cobbett—that strange combination of fierceness and gentleness, of Ishmaelite and Samaritan, who so sorely vexed the souls of the goodly people of Philadelphia over a century ago by the quills upon his fretful Porcupine : “A man, as he writes on a sheet of paper, a word or a sentence, ought to bear in mind that he is writing something which may, for good or evil, live forever,” and as if suggested by this impressive thought, in his essay “Sermons—Barrow to Manning,” Mr. Reed thus makes his first reference to the allied theory which forms the salient feature of this article : “If there be anything in Sir Charles Babbage’s theory, which old Dan Chaucer prefigured, of the air undulations which make the utterances of the human voice immortal, these computations (of English sermons in one year) become overwhelming. If the clangour of strife at Marathon, or the words of Demosthenes and Æschines, be yet sounding in illimitable space, enormous surges of clerical twaddle, masses of pulpit platitudes, are rolling onward too.”¹

In the essay on “Henry Reed,” also of Philadelphia, the theory is more explicitly set forth :

“In one of his lectures on Early English Literature is this passage in reference to Chaucer’s *House of Fame* :

“It contains a passage which has struck me as in curious anticipation of a scientific hypothesis suggested in our own days, poetic imagination foreshadowing the results of scientific reasoning. In the ninth Bridgewater Treatise from the pen of Mr. Babbage, he propounded a theory respecting the permanent impressions of our words—spoken words—a theory startling enough to close a man’s lips in per-

¹ Inasmuch as my paternal grandfather and all his sons were of the ministerial profession, this reflection on the reverend clergy ought, perhaps, to be resented or at least ignored by me, but my offence hath this extent, no more—its necessary quotation.

petual silence ; that the pulsations of the air, once set in motion by the human voice, cease not to exist with the sounds to which they give rise ; that the waves of air thus raised perambulate the earth and ocean's surface ; soon every atom of its atmosphere takes up the altered movement, due to the infinitesimal portion of the primitive motion which has been conveyed to it through countless channels, and which must continue to influence its paths through its future existence. 'Every atom,' says Mr. Babbage, 'impressed with good and with ill, retains at once the motions which philosophers and sages have imparted to it, mixed and combined, in ten thousand ways, with all that is worthless and base. The atmosphere we breathe is the everliving witness of the sentiments we have uttered, and, in another state of being, the offender may hear still vibrating in his ear the very words, uttered perhaps thousands of centuries before, which at once caused and registered his own condemnation.'

The "curious anticipation" and "coincidence worthy of notice," to which Mr. Henry Reed refers, appear in these lines in *The House of Fame* :

"Sound is naught but air that's broken,
 And every speeche that is spoken,
 Whe'er loud or low, foul or fair,
 In his substance is but air :
 For as flame is but lighted smoke,
 Right so is sound but air that's broke ;
 Eke when that men harpstrings smite,
 Whether that be much or lite,—
 Lo, with the stroke the air it breaketh ;
 Thus wot'st thou well what thing is speeche.
 Now henceforth I will thee teach
 However each speeche, voice or soun',
 Through his multiplication,
 Though it were piped of a mouse,
 Must needs come to Fame's House.
 I prove it thus : taketh heed now
 By experience, for if that thou
 Throw in a water now a stone
 Well wot'st thou it will make anon
 A little rounded as a circle,
 Par venture as broad as a coréicle,
 And right anon thou shalt see well
 That circle cause another wheel,
 And that the third, and so forth, hother,
 Every circle causing other,
 Much broader than himselfen was,—
 Right so of air, my live brother,
 Ever each air another stirreth,
 More and more and speeche up beareth
 Till it be at the 'House of Fame.'

In 1845, Henry Reed visited England, and made the acquaintance of Sir Charles Babbage, and in conversation with him related

this incident of the introduction of the subject of this startling theory, and spoke of the effect it had upon some of the audience who had said "that it almost made them afraid for some days to speak from the dread that the sounds were to last, and mayhap come back to them in the hereafter." When he told Mr. Babbage that he had cited the passage in connection with a curious parallelism in Chaucer, the philosopher expressed great surprise.

After reference to this, the latter explained that he had not used light to illustrate his subject because it would have been less effective with the general reader. That Sir Charles was, however, duly impressed with its force and fitness as a means of illustration is evident from his relation of a conversation between Sir John Herschel and Sir William Hamilton, in which the latter said: "Well, if one could travel away from the earth with a velocity exceeding that of light, he would at last be able to look back on the waves of light first set in motion by the battle (that of Marathon and Actium had been mentioned) and so get a good sight of it."

In this age of miracles in revelation, invention, and discovery, when in all the realms of Nature no secrets are hid; when

"Ye read the sky's illumined page,
And the dark hills;
And make the sun paint, lightnings speak,"

who can say that this theory is not a revelation as real in fact as startling in expression,—another grand discovery in the wonders of Creation, demonstrable alike to the ordinary and the cultivated intellect; that the conception of the great Chaucer is but a mere fancy of the dreaming poet or a like hypothesis of the scientist or philosopher, and not a physical reality in the great universe of God; that the waves of sound are not as eternal as the realms of air and space,—as the waves of light from Creation's dawn to Creations close? Can we realise the awful solemnity of the fact that every thoughtful, thoughtless word; every utterance, pious or profane, grave or gay, lively or severe, wise or otherwise; every prayer from unco-righteous lips or afar off publican; every kind or cruel expression from the lips; every cry of pain or terror, joy or sorrow, shall forever echo through the corridors of Time and of Eternity,—survive the wreck of matter, the crash of worlds and like the words of Him who died on Calvary never pass away? And hath He not said: "For there is nothing covered that shall not be revealed; nothing hid that shall not be known. Therefore, whatsoever ye have spoken in darkness shall be heard in the light; and that

which ye have spoken in the ear in closets shall be proclaimed on the housetops?"

The electric fluid—that mysterious subtle force of Nature—conveys our words and utterances throughout each region of the earth,—to distant lands beyond the sea, and from hill to vale, from vale to plain, from gulch to cañon dark, from sleeping hamlet to bustling mart, with lightning speaks the friend to friend, no other medium than the throbbing wire or the circumambient air. If the tones of the human voice can thus be carried many, many a league onward, may not “sound but air that’s broke by speeche or voice,” be endowed with some potent occult influence of Nature to bear the words from mortal lips throughout and beyond this earthly sphere,—perchance to find record in the recording angel’s Book of Life beneath the throne of God? And have we not all reason to pray that the angelic scribe shall drop a tear upon the page and blot it out forever?

Chaucer, as we have seen, illustrates the wave theory of sound by his description of the disturbance of the waters, and a poet of less renown tells us :

“Go, take the bright shell
From its home on the lea,
And wherever it goes
It will sing of the sea ;”

and the master-poet Byron conveys the same idea in his relation of the story of the mutineers of the *Bounty* :

“The ocean scarce spoke louder with its swell
Than breathes the mimic murmurer in his shell,
As far divided from his parent deep,
The sea-born infant cries, and will not sleep,
Raising his little plaint in vain, to rave
For the broad bosom of his nursing wave.”

If many a shell in his hollow-wreathed chamber thus ever retains and preserves the sounds of his home on the lea ; if what the wild waves are saying is never, never lost, can it be more marvelous that the sounds evoked by the human voice should ever fill the chambers of air and space? And has not practical science in its applications of electricity demonstrated like marvels in the transmission and perpetuation of sound? The latest—the most wonderful and remarkable of these—is the Marconi system of telegraphy, in explanation of which recent writers in the magazines of the day make use, not only of Chaucer’s illustrations of the disturbance of the waters, but also otherwise elucidate the wave theory as

manifested in the electrical phenomena in the realms of ether,—like unto the vibrations of sound in the realms of air :

" We say that electricity (or vibrations in the ether) flows in a wire, but nothing really passes but an etheric wave, for the atoms composing the wire, as well as the air and earth, and even the hardest substances, are all afloat in ether. Vibrations, therefore, started at one end of the wire travel to the other. Throw a stone into a quiet pond. Instantly waves are formed which spread out in every direction ; the water does not move except up and down, yet the wave passes on indefinitely. But the ether exists outside of the wire as well as within ; therefore, having the ether everywhere, it must be possible to produce waves in which it will pass anywhere, as well through mountains as over seas." ¹

" Throw a pebble into a pool of water and small waves will be produced and spread out over the surface of the water, and finally die away (apparently). A luminous body, such as the sun, sends forth light-waves which may be likened to these water-waves. But if we state that light travels in waves, we imply that there must be something through which it travels. This mysterious something cannot be air ; for light travels millions and millions of miles through space completely devoid of air. If not air, what then ? Evidently something that fills seemingly vacant space, and permeates all solids and liquids, and serves as a medium for the transmission of light, of heat, and other manifestations of force." ²

" Nature, though convulsive, is curiously cautious. She possesses a sort of stock in trade of which her supply is uniform. That stock is energy. She transforms it, transmutes it, and transposes it. But never does she suffer a speck of it to get away. She may store in microbe or man, sporules or stars, but on to it all she holds very tight." ³

" An ether like this will transmit the transverse vibrations that constitute light without being affected by waves of condensation, and its structure will account for many other phenomena that it has hitherto been difficult to explain. The etheric medium is the grand reservoir of natural forces where naught is created and naught is lost." ⁴

" Doubtless matter is immortal, and being revived continually by solar heat, it is destined to live without end ; doubtless also no form of energy is lost, and what has been vital activity will live eternally in the form of undulations and vibrations that nothing can annihilate, in the limitless spaces of the universe." ⁵

If these mysterious properties of ether and of matter are manifest in the conveyance through them or by them of light and heat and electricity, why should not the waves of sound, once started in the chambers of air, be received into those of ether, and passed on like them forever through boundless space ? The lightning's flash conveyed by the etheric waves we know sensibly precedes the sound of the air waves from the thunderbolt of the storm-clouded sky, but is the latter, therefore, only a moment heard—

¹ *McClure's Magazine*, February, 1902.

² *Woman's Home Companion*, March, 1902.

³ *Smart Set*, January, 1902.

⁴ *The Literary Digest*, April 20, 1901.

⁵ *The Literary Digest*, February, 1901. I might add to these quotations from the writings of other in the same or a kindred vein of thought, as from time to time I have met with them in print, but I forbear being warned thereunto.

then lost forever? The rays of light from planet, sun and star,—the rays of solar heat which ever brighten and gladden the earth and universe never cease nor “bide a wee” in their abundant flow, and the electric waves ever speedily and silently pass within and without matter as solid as the ever-lasting hills, limited only by the bounds of space and of eternity. Can it be then that the sounds of the human voice disturb only for a moment the atmosphere of earth, and forever thereafter hold their peace,—ephemeral in character and existence? In the wonderful economy of Nature, in the grand scheme of Creation, is there anything that can be irrevocably lost, void and of none effect?

Does not Nature abhor a vacuum, and are not the elements and forces within the metes and bounds of the universe ever in restless commotion? The tiny feather breaks the camel's back,—the trickling leak brings the watery flood with ruin in its path,—a great matter a little fire kindleth,—a drop of water constant in its flow like faith can remove mountains, and are the waves of ether and of air less potential? In life,—in death, the spirit of change, in all its motions and emotions, is ever active—ever mysterious in its operations and transformations. The natural body, sinless or sinful, perfect or deformed, is raised a spiritual body—the dying grain buds and blossoms and blooms in the blade, the ear, and the full corn in the ear; all of which, like the mysteries of ether, air, and space, we see through a glass darkly, and can only conjecture, ponder, and pray: “Lighten our darkness, O Lord, we beseech Thee.”

The resultant of the forces of Nature, active or latent, occult or known, we see on every hand, and behold they show us a mystery. Contrasted with these manifestations, does it seem that this theory, startling though it be, of the permanent disturbance of the waves of air, once “broken by speeche or voice or soun’,” can be altogether irrational, factitious, or inconceivable? This conception of the poet Chaucer, coincident with the results of the scientific reasoning of the philosopher Babbage, and also of which the accomplished Chandler and Reeds of Philadelphia seem to be the latest exponents—is an apt illustration of the truth of the statement that “it is the charm of certain ideas that beginning as fancies they end as facts.” We know that Sir Charles Babbage was an eminent mathematician, and therefore not given to accepting fancies as facts, or solving any equation or problem except with known quantities as factors, and our Philadelphia coterie were noted for their high literary character and culture. Thus confronted by a

condition not a theory—by a fact not a fancy, are we not compelled to receive it implicitly, or by rejecting take no stock in Nature's supply of energy, or in the scientific axiom that "sound that can be projected a mile can be projected a million miles—to the ends of space, if ends there are,"¹ or the fact that "the ether waves, once started in free space, travel on—to the moon, to Mars, to Sirius, and the North Star."² Is this projection, perpetuation, or preservation of the waves of sound in the realm of air, ether and space, more remarkable or incredible than the fact stated by an eminent architect that the vibrations of the delicate violin, iterated and re-iterated, can destroy the most solid structure that can be designed and constructed, and that a man on an iron-clad vessel can feel the vibrations of its attuned chords, and yet be insensible, though blessed with ears to hear, to the concord of sweet sounds—that like Tara's harp in Tara's halls the soul of music shed?

The similarity or identity in their true inwardness of unlike substances of matter furnishes a marvel quite as difficult of comprehension and explanation. The rare and costly diamond is but carboniferous matter—carbon pure and undefiled, but though thus allied to the more abundant coals that Mr. Micawber at one time turned his versatile genius and attention to, and which have lately given great concern to our people, yet in its aspect to the eye it does not suggest the fiery furnace, but in its barbaric splendor attractive adornment to lady fair or vulgar man. The loveliest pearl that ever lay under Oman's green water, or that the dark unfathomed caves of ocean bear, is but the diseased encrustation of the luscious bivalve the epicure delights in, and doth quickly lose its identity, form, and brilliancy when dissolved in the wine-cup—perchance at the whim of some capricious beauty, like unto Cleopatra in the days of her "mad Antony." The gold of the mine resists the most powerful acids known save one, and to that it yields up its substance and becomes as though it were not, and the coin of the realm, with which we pay tribute unto the Cæsars of the earth, and its other artistic products—*utile et dulce*—subjected to this acid's influence, disappear in a solution of purple—their colors lost in the action. Absorbed in the mercury of the alchemist, it effaces itself in an amalgam, from which it can be released only by another chemical process, all of which we see and seek in vain for an explanation that will explain and enlighten.

And worthy of note and a fair corollary to our theme, the roots of the humble weed (a salad for the solitary or the social, and the

¹ Edgar Saltus in *Smart Set*, January, 1902.

² *Current History*, March, 1902.

bland ingredient of the fragrant berry "in its cups") have been known to force themselves through solid concrete or more solid masonry or rock; and the writer has seen a feeble sapling push its way through a fallen monarch of the forest, and become a sturdy tree, whereon the fowls of the air might rest and nest. The waters of the sea, slowly percolating through the crust of the earth, bring forth from the bowels of the land fracture, violence, and fire, whilst

"Adown a mighty steep, a Niagara,
Of gory-red lava rolls into the sea,"

which gave it birth. Deep in the wave the coral grove by ceaseless accretions from insect life is transformed into islands, keys, and continents, whereon the sea-birds mew and the pelican and bittern build their nests, and in the cycles of time on earth, thereon and thereafter, science may erect her temples and religion her sacred fanes. The insignificant atoms of soil and rock, of plant and tree, aye of all created things, moribund, disintegrated or dissolved, become the powerful agents of destruction, construction, and re-construction—through chemical, electrical, or other occult action. And who that reflects on these mighty workings of Nature, in her calm or angry moods, can say that chaos may not come again and all the abomination of desolation, or in more beneficent design she may not scatter plenty o'er a smiling land with a richer endowment of utility, beauty, and fertility, and all

"The stores of earth like streams that seek the sea
Pour out the tribute of their wealth"

to every creature who, with devout and thankful heart, may gladly sing his Benedicite :

"O all ye works of the Lord, bless ye the Lord, praise Him and magnify Him forever."

The earth hath bubbles as the water has, but the bubbles that swim on the beaker's brim, or on the surface of the water, or on the face of the solid globe itself, may not in fact be as evanescent as they appear to mortal vision, and as

"There are more things in heaven and earth, Horatio,
Than are dreamt of in our philosophy,"

can it not be that the elements of ether and of air possess qualities or properties more permanent in existence—more potent in influence and effect—more amazing in ubiquity and utility than any yet revealed to mortal ken? Then, restless mortal, marvel not at all, but with meet and silent awe,

"Forbear, vain man, to launch with reason's eye
 Through the vast depths of dark immensity,
 Nor think thy narrow but presumpt'ous mind
 The least idea of thy God can find.
 Thought, crowding thought, distracts the lab'ring brain,
 For how can finite Infinite explain?
 Then God adore, and conscious rest in this,
 None but Himself can paint Him as He is."¹

It was my original intention to use this quotation without explanation, note, or comment, but the lines have a history other than that of my own recollection of them. The engraving—described in the following extract from a Baltimore journal—long hung over the mantle-piece in my grandfather's office, and thus became indelibly impressed upon my childish memory. Inasmuch as this representation of "The Conversion of Galen" has lately attracted some attention, and as the skeleton in the forest was no doubt as great a revelation to Galen as Babbage's theory of soundings in the air is to us, I cannot think this explanatory note altogether out of place here. With one exception—in a family memoir—the lines have appeared in print only as hereinafter stated:

"BALTIMORE COUNTY MEDICAL ASSOCIATION.

"Dr. William J. Todd presented the picture 'The Conversion of Galen,' and gave the following description:

"The following was copied from *The American Domestic Medicine or Medical Admonisher*, by Horatio Gates Jameson, M. D., Honorary Member of the Medical Society of Maryland, and a late surgeon in the General Hospital for the army in Baltimore, printed there in 1818 by John D. Toy. The plate Dr. Jameson refers to has been lost from the book, but the explanation no doubt explains the plate. 'The design is from a picture in the possession of my father. Dr. David Jameson, of York, Pa. It represents the celebrated Galen (viewing a skeleton) of whom it was said, though an atheist he was a strict observer of Nature, till by chance finding a skeleton he thought it of too curious a construction to be the work of chance. The vast and sudden expansion of his views of the Deity in the following lines (already given) while they agreeably surprise us, are a strong confirmation of the existence of a light that lighteth every man.'"¹

In a letter to the writer, Dr. William J. Todd states that the print was cut from a pamphlet sent out by a medical firm in New York State; underneath was a note: "We have thus far been unable to trace the history of this plate, or to discover its significance, and we will be pleased to have some medical antiquarian enlighten us concerning same."