THE PIONEERS OF LARYNGOLOGY.

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"By mutual confidence and mutual aid
Great deeds are done and great discoveries made;
The wise new prudence from the wise acquire,
And one great hero fans another's fire." —Homer.

Manuel Garcia's achievement is the great white light of an illuminating current extending through a century. Brilliant indeed this laryngological line, and more brilliant in spots, of which the chief center of light is Garcia's achievement.

Homer's sentiment is true of laryngological advance before him, and equally true of its progress after him. The fire that was to illumine the larynx was smouldering for fifty years previous to Garcia's announcement. It has burned with increasing brightness the fifty years since; but strange as it may seem, the single-hearted singing master was ignorant of the endeavors of his predecessors. He knew nothing of Bozzini, Cogniard de la Tour, Babbington, Liston, Baumes, Troussseau, Belloc, Selligne, Brunati, Worden, Avery and Cutter, heroes who had successively fanned one another's fire from the advent of the century into the very glow of his own splendid enlightenment. The light that was "hovering in the air" was no *ignis fatuus* caught in an elusive moment and turned to utility, after others had been led through maze and haze, but rather as that other one that never had been seen on sea or shore. To Garcia it was a new manifestation. For Garcia's profession was not scientific in the medical aspect; if, indeed, a science, it was only auxiliary to the one it was to illumine and the one it was to create. Like the fathers of this republic, he "builded better than he knew" when with his little mirror he showed us something new under the sun. As we have said, his life and work were set apart from the medical fraternity, and little he

knew of the men who for fifty years had been asserting the practicability of a scientific achievement synonymous with his own, but without success in making it manifest. For Garcia, there was no "mutual confidence" to inspire, no "mutual aid" to guide, and when his dream took the form of reality it ranked as one of the "great discoveries," and his simple report to the Royal Society of London stands as one of the "great deeds."

Slowly, very slowly, great ideas come to their fruition, and that it was not so with Garcia argues not Homer wrong. It is because the world is not ready for the revelation, the world so ever quick to stone its prophets. It may not be that the idea is barren, but the world cannot conceive. Likely, had the world been ready to look into the larynx, it would not have waited for a singing master to demonstrate what many medical men had declared practicable. Garcia was prepared to take the tide at its flood, when it meant much for himself and more for the world. But because of his ignorance of what others had done, and of his own self-dependence, we cannot pluck one leaf from his laurel; because of the impetus his practical demonstration of an idea gave to a science, we call him the Father of Laryngology.

Very soon after he made his announcement, the world was afire with the idea. Editors of journals proclaimed it and societies discussed it. The day of denial was short. Probably the first of the many scientists to fan the hero's fire were Türck and Czermak, names indissolubly associated in an unfortunate controversy over precedence in adaptation and development. In the light which his own great personality shed upon the darkened way, we may forgive Türck for his Promethean assault upon the divine fire of Garcia. Türck preceded Czermak in the employment of the mirrors, but Czermak was one year ahead of him in the publishment of the results of their work. However, their labors were so simultaneous, and the advancement of the idea so uniform, that posterity can do no better than acquiesce in the decision of the Academy of Sciences of the Imperial Institute of France which awarded to each, twelve thousand francs, after a commission, appointed by it, had investigated their contending claims. Türck was untiring in his endeavors to advance the new science. His brochure published in 1860 was one year behind Czermak's, both of which did much to make laryngoscopy popular. But Türck wrote incessantly, frequently, contentiously, and while he claimed precedence of Garcia in the successful mirror examination of the larynx, which is conclusively denied, he was powerful in the spread of knowledge of the pathology of the organ.

His books and pamphlets, which were translated into the English and French, described conditions in various diseases as diphtheria, syphilis, lupus, edema, tumors, etc.

It was in 1858 that Czermak published an article in a Viennese journal advocating lamplight instead of sunlight as employed by Garcia and Türck. He specially urged persistence in manipulation as useful in overcoming difficulties in technic. Later he suggested the head mirror. His subsequent claim that but for the invention of the head mirror, laryngoscopy would have been a "dead born child" is simple truth. This first publication of Czermak's did much towards prodding into activity the inertia of less virile minds. Czermak also deserves credit for his demonstration of a post-rhinocopy and he was first to introduce the mirror through a tracheal fissure and reveal the lower surface of the vocal chords.

While we have not space to detail the achievements of many less prominent among these pioneers of laryngology, nor to consider the many valuable contributions of living laryngologists whose names the medical world will not willingly let die, we should not pass over Semeleder, pupil of Czermak, early in pathological explorations of the tongue and epiglottis. Stork and Gerhardt who studied specially intra-laryngology, and practiced intra-laryngologic applications, confirming the claims of Horace Green in America, made long before Garcia's announcement, that he had applied nitrate of silver to the interior of the larynx with an applicator; and Voltolini, who advanced Czermak's post-rhinoscopic idea when he dispensed with the palate retractor of the latter. He also invented an apparatus by which he employed burning oxygen gas in incandescent light for examination of both ear and throat. Voltolini and Semeleder invoked the aid of post-rhinocopy in the passage of the Eustachian catheter, and to the former belongs special credit for increasing knowledge of the galvano-cautery and post-pharyngoscopy. Tobold was active in promoting the new science in Berlin, and as early as 1863 he invented the stand-reflecting mirror, which was later modified into the "Tobold apparatus."

Rauchfuss was the pioneer who piloted laryngology into and through the dark waters of the Russian scientific world. His first communication, "Zur laryngoskopischen Technik" appeared in the St. Petersburg Zeitsch. in 1861. This paper established laryngoscopy and the practicability of intra-laryngeal operations in "darkest Russia."

With the development of laryngology in England, the name of Morell Mackenzie is eternally associated as pioneer and leader. After visiting Czermak in 1859, he returned to London and led the vanguard composed of Gibb, Prosser James, Windsor and a few other choice spirits to the battle for the establishment of laryngology in the territory of medical and surgical science. In 1863 he won the Jackson prize of the Royal College of Surgeons for his paper on "The Pathology and Treatment of Laryngeal Disease." A little later he published an article on "The Use of the Laryngoscope in Disease of the Throat with an Appendix for Rhinoscopy." His great work on "Disease of the Nose and Throat" which has done so much to develop laryngology is still our greatest English classic and likely to remain so.

America, always quick to receive and adopt ideas, was not behind the Old World in accepting and developing the new science. Sprangenwald, Church, Krackowitzer, Douglass and Cutter, in the period from 1860 to 1863, are names to conjure with in any survey of the history of American Laryngology. In our enumeration of the heroes who fanned Garcia's fire in the New World, special homage is due Horace Green and Louis Elsberg. Horace Green, who had long before Garcia's report fought a manly fight, in the face of vituperation and denial by hosts of practitioners, to establish the fact that he made intra-laryngeal applications of nitrate of silver and cured laryngeal catarrh therewith, was quick to accept and confirm Garcia's achievement. Let us be thankful that he lived until 1866, three years after Elsberg had proved to the New York Academy of Medicine and the American Medical Association the truth of his claims. To Louis Elsberg, Laryngology owes more than to anyone else for the speedy acceptance it secured in America. He was the first American teacher of the art, demonstrating to his students the use of instruments some time before their acceptance by the profession at large, even before his papers on the subject which first appeared in 1862 and frequently afterwards. He had been teaching the art in the medical department of the University of New York for seven years before his work was sufficiently recognized for the directors to accord him the title of Professor. This was in 1868, and very rapidly after this the colleges and clinics of New York and other cities recognized laryngology as one of the not to be ignored departments of medical science.

The intricate nerve and cell connection, with contiguity of organs, have so broadened the sphere of laryngology, that the science now

embraces all of the respiratory passages that come within the light of the laryngoscope. The intimate relationship and inter-dependence of these various parts of the throat and nose have compelled a notice in this paper of men whose work was extra-laryngeal. Of these, was Wilhelm Meyer of Copenhagen whose discovery of adenoids must be ranked as more important and far reaching in its effects than any growing out of Garcia's revolutionary revelation. This one contribution from little Denmark has immortalized Meyer, and given his nation an honorable place forever, among those which receive and reflect the light, for it touched the very life breath of human health and happiness. Nothing of consequence has been added to our knowledge of adenoids since Meyer's annunciation, and if all that has since been written on the subject was blotted out, our science would be none the poorer. He added to human strength, he contributed to human comfort; he opened the ears of the deaf; and made mankind more beautiful in form and feature; he toned and tuned that marvellous instrument, the human voice and shut the very doors of insane asylums upon the frail and the wretched. And generations to come need not, as now, look upon pictures of the pinched, dull faces of their ancestors, in album and gallery, from a special disease; they may not listen to the voices of their preachers and prophets while they "draw their breath in pain and tell their story," nor hear their little children's trebles "like sweet bells jangled, harsh and out of tune."

And if at our conclusion cynic or skeptic should ask "What avails it?" that "such as these have lived and died" we should rise up and summon tens of thousands to tell us, out of their own experiences, that for Garcia's sake and the pioneers who fanned his fire, life is stronger and longer, sweeter in story and softer in song, and the "human form divine" imaged more "like a God."