History of Publications from the American Otological Society: A Celebration of the 150-Year History of the American Otological Society

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The American Otological Society (AOS) has been on the forefront of advancing the science of auditory and vestibular physiology, and art of ear medicine since its founding in 1868. For 150 years, through its publications, the AOS has provided a critical forum to debate these advances, highlighting treatment successes and failures, and served a place to celebrate its history. This historical review provides an overview of the publications of the AOS since its founding: the Transactions of the annual meeting from 1868 through

2006, *Treatises on Otosclerosis* (1928–1935), the History of the Society from the 100 and 125th anniversary, and the sponsored Society journals—*American Journal of Otology* (1879–1883, 1979–2000) and *Otology & Neurotology* (2001–present). **Key Words:** *American Journal of Otology*—American Otological Society—History—Neurotology—Otology—Otosclerosis—Transactions.

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SETTING THE STAGE: THE 1860s

The mid-third of the 19th century was a time of great scientific advancement, and medicine and surgery were developing at an increasingly rapid pace. Despite this, in the mid-1830s, the treatment of ear diseases was still neglected and disdained by most surgeons. Sir Astley Cooper, credited with primacy of myringotomy paracentesis, had abandoned the ear for general surgery in the early 1800s. One of the pioneering ear surgeons, Anton Friedrich Von Tröltsch, as late as 1863 bluntly stated, "There is scarcely any department of the science of medicine in which there is, even at this day, so much ignorance of facts, and such a want of possessiveness of opinion, as in aural medicine and surgery" (1). He later went on to state, "I need not speak to you, gentleman, of the importance of pathologic anatomy, for medical science, any more than I need to tell you that the sun illuminates the earth over which it shines. We have already seen how late it was in the history of aural medicine and surgery before pathological investigation

of the ear was undertaken, and that the slow and late development of this part of our science resulted as it necessarily must, from this neglect of the appearances of the organ on the cadaver' (1). Echoing similar sentiments, Toynbee wrote in the introduction of his text, "...if we carefully survey the history of the rise and progress of Aural, as a distinct branch of Scientific Surgery, one main cause of the disrepute into which it had fallen may be traced to the neglect of the Pathology of the organ of hearing-a neglect that doubtless led also to the ignorance which has prevailed as to the structure and functions of some of the most important of its parts" (2). Similarly, the eminent surgeon Theodor Billroth reiterated these sentiments in 1874 when he wrote that, "...the instruction in diseases of the ear was in a very bad state. I remember well from my own student days how the poor deaf people were sent from one clinic to the other; nobody felt inclined to take any interest in them. With a few obvious exceptions this field is therapeutically much too barren' (3). Billroth further stated that otologic surgery called, "...for a certain amount of heroism in a man to sacrifice himself to this, therapeutically the most thankless and limited, phase of surgery" (3).

Most physicians of this time felt as Billroth, Toynbee, and von Tröltsch did; that the ear was complicated, inaccessible, and dangerous, as demonstrated by the disastrous early attempts at early mastoid surgery resulting in deafness or severe tinnitus. Though the anatomy of the ear was well described by this time, its physiology was far from completely understood and a rational approach to

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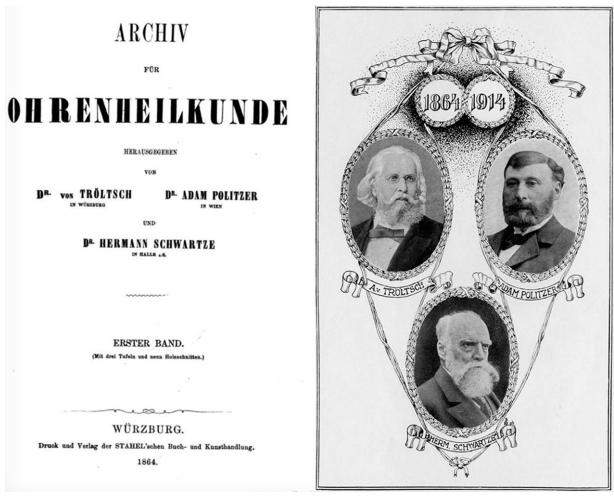


FIG. 1. The Archiv fur Ohrenehilkunde (left) is the first journal dedicated solely to the ear. It was begun in 1864 by Adam Politzer, Herman Schwartz, and Anton Friedrich von Troeltsch. The 50-year anniversary edition in 1914 included a tribute to the three founders (*right*).

pathology was barely evident, being little more than that advanced by Valsalva and Du Verney 150 years prior. All this would be radically changed over the course of the ensuing 20 years by pioneering ear surgeons including Toynbee, Schwartz, von Tröltsch, and Politzer. Together these men would transform ear surgery into a modern specialty, and train the myriad of Americans traveling through Europe to study this "neglected" field. These Americans then returned to the Unites States, where they would develop otology along similar principles.

One region that was particularly influential to medicine in America was the Vienna Medical School in the second half of the 19th century. The "Allgemeinen Krankenhauses" was the home to some of the greatest medical minds of the day, a concentration of physicians and scientists unequaled in the annals of medicine up to that time. Contributing to the development of otology and vestibular sciences, at this time Vienna claimed such notable figures as Politzer, Barany, Alexander, Gruber, and Brauer. According to Henry Hun, a neurologist and author of a guide for American medical students training in Europe at that time, "...there is,

undoubtedly, no place where a student can attend so many excellent clinics with so little loss of time, or where he can so well train his eyes and hands in methods of diagnosis and treatment, as in Vienna' (4). More directly, Lesky stated that during this seminal time period, "Vienna medicine had become world medicine" (5).

Within otology, the leaders of this new generation were Adam Politzer, Herman Schwartz, and the more senior Anton Friedrich von Tröltsch. In 1863, together these three individuals founded the *Archiv für Ohrenheilkunde* (*Archives of Otology*), the first journal dedicated solely to ear disease (Fig. 1). As noted by Mudry, the timing for the creation of the journal was perfect—there was a need for a specialized journal in the burgeoning field of otology, which was just beginning to be recognized as a specialty, and "...otological knowledge was sufficiently broad to necessitate publishing its progress in its own specialized journal" (6). In fact, a number of other journals featuring otologic themes sprouted in the ensuing 20 years, including the *Archives of Otology* (English translations of the *Archiv für Ohrenheilkunde*, 1879), *Archives of Ophthalmology*

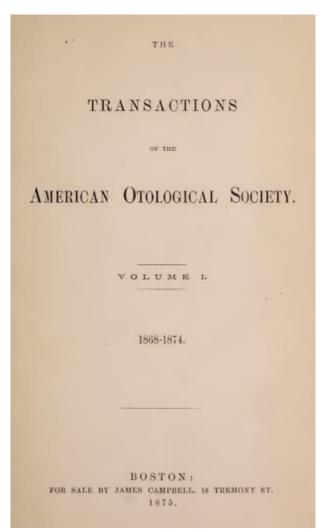


FIG. 2. Title page of Volume I of the *Transactions of the American Otological Society*, comprising the years 1868–1874, and covering the first 7 years of the Society. It was the only issue produced by James Campbell (publisher), in Boston. It begins with the transactions of the second meeting, since the first meeting was primarily to organize the Society and set out its bylaws.

and Otology and its German counterpart the Archiv für Augen- und Ohrenheilkunde (1869) (7), Zeitschrift Ohrenheilkunde (1871), the American Journal of Otology (1879) (8) (see below), and Praktische Beitrage zur Ohrenheilkunde (1866). These journals undoubtedly served as an intellectual inspiration to the myriad of surgeons traveling through Politzer's clinic at that time, who would return to the United States and start their own societies and related publications.

THE TRANSACTIONS OF THE AMERICAN OTOLOGICAL SOCIETY

The first meeting of the American Otological Society (AOS) occurred in 1868, on the tails of the American Ophthalmologic Society meeting, in Newport, Rhode

Island, at the Atlantic Hotel. The following year the second annual meeting occurred at the same location on Tuesday July 20, 1869. Although the minutes from the first meeting the year prior were read and approved, there were no Transactions produced, and the minutes were not available until the second meeting. The Transactions were subsequently bound into several larger volumes. Volume I (Fig. 2) comprising the years 1868–1874, represented the meetings of the first 7 years of the Society (9). It was published in Boston by James Campbell (18 Tremont St), in 1875. The preface of the Volume I provides a compelling "raison d'etre" of the Transactions and the Society itself:

Until within a very few years, the science and art of Otology had been almost entirely neglected by the medical profession of the United States. In this respect, however, we were not much behind most other parts of the civilized world.

In its very best position, Otology was an appendage, not always very gracefully worn, to the Department of Ophthalmology; for in this country, as in Ireland, diseases of the Eye and Ear have always been connected, both in the minds of the professional and the laity. The Ophthalmological Society of the City of New York thus far has for its object the cultivation of both ophthalmic and aural science.

After the American Ophthalmological Society had proved itself a useful organization, and had become firmly established, the question of amending its constitution so as to admit the discussion of aural subjects, was considered by the members, nearly all of whom were engaged in the practice of both Ophthalmology and Otology. It was proposed to devote one day of the annual sessions of the Society to aural medicine and surgery; but it was finally decided that such a union could not produce satisfactory results. Consequently, on the 22d of July, 1868, the American Otological Society was organized by certain members of the American Ophthalmological Society, who were then at Newport Rhode Island, in attendance upon the fifth meeting of the latter. Their names will be found in the minutes of the first meeting, which are printed in this volume.

As will be seen by reference to the record, no scientific business was then transacted; but at each annual meeting papers have been read and discussions held. It is believed that these articles and debates have contributed essentially to the interest in aural science that now obtains in this country and abroad; and it is confidently hoped that the Otological Society has but just begun a career which is to continue so long as medical science is cultivated. November 3, 1874. (9)

Each meeting Transactions followed a similar format. There was a roll call (Fig. 3), followed by a reading and approval of the minutes from the prior year. Committee memberships were appointed and approved. There then followed a "Report of the Progress of Otology" by one of the members, which was a compendium of the most important and compelling

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(2.) A paper by Dr. Wm. W. Morland, of Boston (read by the Secretary), on Deafness in connection with Pregnancy and the Puerperal Condition.

" C. E. Rider Rochester, N.Y.

" E. L. Holmes Chicago, Ills.

DEAFNESS IN CONNECTION WITH PREGNANCY AND THE PUER-PERAL CONDITION. By WM. W. MORLAND, M. D., of Boston.

Mrs. K., 38 years old, a stout, healthy looking woman, of strumous diathesis, although not very marked, consulted me some time since in relation to a deafness, which—with certain remissions, to be specified—had continued for thirteen years.

It first came on immediately after her first miscarriage, thirteen years since. She has since miscarried five times. On several of these occasions she flowed dangerously. The miscarriages have been at various periods, from six weeks to six months.

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REPORT ON THE PROGRESS OF OTOLOGY. By D. B. St. John Roosa, M. D., of New York.
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MR. PRESIDENT AND GENTLEMEN:

The progress in otological science during the last year, although not marked by any grand discovery, has been substantial and far from insignificant. Here and there points have been opened up in the field which promise much from future investigation, while in some other instances subjects of importance have been fully investigated.

The new era of otology—for we may be said to be in a new era—dates from the introduction of a generally practicable mode of examining the membrana tympani (Tröltsch), and from the simplification and amplification of our means of

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A tax of one dollar was assessed on each member.
  The following subject was chosen for discussion next year,
viz., Simple Chronic Infiammation of the Tympanum.
  The following committees were appointed and officers
elected for the ensuing year, viz.:
                 COMMITTEE ON PUBLICATION:
                    Dr. C. E. HACKLEY.
                        R. F. WEIR.
            COMMITTEE ON PROGRESS OF OTOLOGY:
                   Dr. J. ORNE GREEN.
                    OFFICERS FOR 1300-70:
                   ... Dr. H. D. Noyes.
    President ...
    Vice-President ... "E. L. HOLMES.
Rec. Secretary and Treas. "C. E. RIDER.
Cor. Secretary ... "H. L. Shaw.
  The Society then adjourned to meet at the Atlantic Hotel,
Newport, R. I., on Wednesday, July 22d, 1870.
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FIG. 3. Sections from the Transactions covering the second meeting of the American Otological Society in 1869. The structure of subsequent Transactions were very similar, and included a roll call (*upper left panel*), a report on the Progress of Otology from the prior year (*upper right panel*), a series of case reports and clinical observations (*lower left panel*), and finally additional societal business notes (*lower right panel*). The Transactions concluded with the designation of a committee to produce the following years' Transactions and a selection of who will deliver the Progress of Otology.

findings and publications over the prior year. In the transactions from the second meeting, this was read by D.B. St. John Roosa, M.D., of New York (Fig. 3). "The progress in otological science during the last year, although not marked by any grand discovery, has been substantial and far from insignificant," he wrote in the introduction. He further opined, "The new era of otology-for we may be said to be in a new era—dates from the introduction of a generally practicable mode of examining the membrane tympani (Tröltsch), and from the simplification and amplification of our means of opening the Eustachian tube (Politzer)." St. John Roosa then went on to summarize advances in understanding of diseases of the auricle, opined on Aspergillus of the external auditory canal, described exostosis, diffuse inflammation of the meatus, described the confirmation of the existence of the foramen of Rivinus ("Rivinian Foramen"), reported on investigations of the tympanic membrane, discussed research on the Eustachian tube, anatomical discoveries of the petrous mastoid bone, discussed paracentesis of the drum, described otitis media in neonates ("Otitis Neonatorum"), described voluntary contractions of the

tensor tympani muscle, and reported on research describing motion of the stapes.

In each Transaction, after the "Progress in Otology," there followed a variable number of case reports and clinical observations. In the Transactions from the second meeting, these included:

Deafness in Connection with Pregnancy and the Puerperal Condition. By Wm. W. Morland, M. D., of Boston.

A Case of Purulent Otitis Media caused by the Nasal Douche, and showing the Symptom of Double Hearing with both Ears. By H. Knapp, of New York.

Two Cases of Parasitic Growth (Aspergillus Glaucus) in the External Auditory Meatus. By J. Orne Green, M.D., of Boston.

Each Transactions ends with additional bylaws changes, other housekeeping matters, and then an announcement on the make-up of the following years' Committee on Publications, who were tasked with putting together the Transactions for the upcoming year, as well as a selection of who will prepare the Progress of Otology. For example, the Transactions of the second meeting noted the publications committee included

Dr. C. E. Hackley and Dr. R. F. Weir, whereas Dr. J. Orne Green was selected to provide the Progress of Otology. It was also noted that a tax of \$1 was assessed on each member (Fig. 3).

There were several publishers during the early years of the Transactions. Volume I of the Transactions, covering the years from 1868 to 1874, was produced in Boston by James Campbell of 18 Tremont St, in 1875. Volume II of the Transactions, covering the meetings from years 1875 to 1881 (starting with the eighth meeting of the AOS) was published by A. Williams & Co., 283 Washington Street, Boston. Beginning with volume III (1882–1887) printing was taken over by Mercury Publishing Company, 112 and 114 Union St, New Bedford, Massachusetts, who developed a long-term relationship with the Society. Mercury Publishing Company was perhaps better known for publishing the daily newspaper, "The New Bedford Mercury" (est. 1807) chronicling news and life in the New Bedford region, a town important in the whale-oil gathering industry (10). How they came to be the publishers of the Transactions through the early years of the Society is unknown. Interestingly, in this initial edition printed by Mercury, there is a typo of the title page, listing the transactions spanning 1882–1887 when in fact it only includes the meetings to 1886 (Fig. 4)! (11) Another error occurred during the publication of Volumes 9 and 10. In fact, it was only volume 9, but in order to avoid a lapse in the numerical order, the volume was renumbered "IX and X," with the following clarification written on the title page: "The complication of these volumes together is caused by a printer's error, and probably less annoyance and misunderstanding will occur by the use of the above title" (12) (Fig. 5). In 1922, after 40 years, printing of the Transactions changed from Mercury Publishers to Geo H. Reynolds Printing, also located in New Bedford, Massachusetts (13). The reason for this change is unknown, since Mercury continued publishing after this date. George H. Reynolds Printing, later named Reynolds Printing, printed the Transactions at least through 1936 (Volume 26).

Beginning in 1941 (Volume 31), Printing was assumed by Britt Printing in St Louis, Missouri (14). During World War II, in 1943 and 1945, due to difficulty with travel, there was no AOS meeting and thus no Transactions were produced, the only two gaps in the 138 year history of the Transactions. In 1947, printing was taken over by the American Medical Association, 535 North Dearborn St, Chicago, Illinois (volume 35, published in 1949) (15). The following year, 1948, the Transactions printing was assumed by Zimmerman-Petty, St. Louis, Missouri (16). Interestingly, the 1948 Transactions were published in 1948, before the 1947 Transactions, which were printed a year later. Perhaps this lapse is what led to another change in printers. However, there was stability on this front, as Zimmerman-Petty had the role of printer through 1965. Following this another series of printers were employed (Z-P Graphic Arts, St. Louis, Missouri, from 1966 to 1968; Modern Typesetting Co., St Louis, Missouri, 1969). Thereafter, from 1970 through 1990,

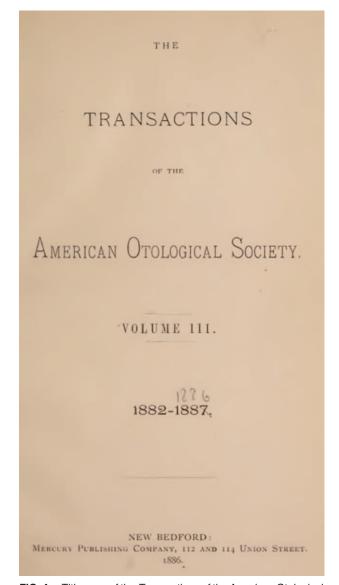


FIG. 4. Title page of the *Transactions of the American Otological Society* Volume III. This title page erroneously lists the meetings spanning 1882–1887. In fact, the volume only includes up through 1886. In this copy, someone has penciled in the correct dates for the Transactions.

there is only a notation on each Transactions indicating "Published by the Society, St. Louis." Then beginning in 1991, the printer was changed to Decker Periodicals Inc, from Hamilton, Ontario, the same publisher who would restart the *American Journal of Otology*, in 1979 (17). Beginning in 1995, the printer was again changed to Lippincott-Raven (1995–1996) and later Lippincott Williams and Wilkins (through 2001).

However, the era of the printed Transactions was coming to an end. Production costs were expensive, and increased accessibility of digital media allowed the Transactions to become solely electronic. Further, with the adoption of the journal *Otology & Neurotology*

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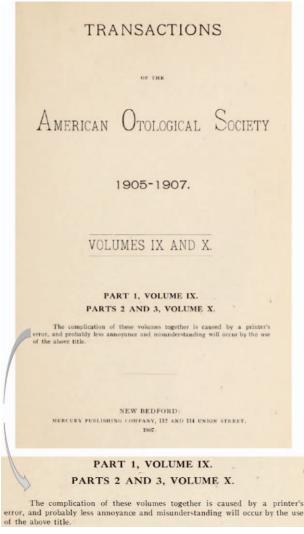


FIG. 5. Title page of the *Transactions of the American Otological Society*, Volumes XI and X. This represents another printer error, as the volume should only have been volume IX; the X designation was added to avoid future confusion. As noted on the title page (enlarged below in the lower panel), "The complication of these volumes together is caused by a printer's error, and probably less annoyance and misunderstanding will occur by the use of the above title."

(originally the American Journal of Otology) as the official publication of the AOS in the 1990s, there was no longer a need for the Transactions to serve as a vehicle for publishing AOS scientific reports. In fact, in its later iterations, the Transactions primarily included the abstracts of papers from its annual meeting, a far cry from its original purpose in the late 1800s. The 2003 AOS newsletter (volume 12) noted, "The Council is pleased to announce the AOS Transactions will no longer be published as a hard cover presentation on a yearly basis. The 2002 Transactions will be published on the AOS website. The AOS will

only publish a hard cover five year summary of the Transactions. The hard cover presentation of the Transactions has continued to be a significant cost factor for the Society and by publishing on the website, the Society will recognize a cost savings of eight to nine thousand dollars per year." (Though it should be noted the 5-year summaries were never produced as suggested.) Furthermore, Dr. Sam Kinney's Editor-Librarian report from the 2003 AOS Transactions noted that "The Council of the AOS decided in February 2003 to discontinue the hard cover distribution of the Transactions. In place of the hardcover book the Transactions will be placed on the AOS website." With this move, the Transactions entered the modern digital age, with availability in an electronic format (pdf or Microsoft word) published by the Society (18). The last Transactions produced that were available for download were from 2006 (volume 94), corresponding to the 139th meeting of the Society that took place in Chicago, Illinois. At present, the entire run of the AOS transactions is available online at: http://www.americanotologicalsociety.org/transactions

REPORT OF THE FIRST CONGRESS OF THE INTERNATIONAL OTOLOGICAL SOCIETY

The year 1876, 8 years after the founding of the AOS, was also the 100-year anniversary of America's Independence. In addition to numerous celebrations around the country, a large international medical exposition was held in Philadelphia to mark the occasion. At this time the International Ophthalmological Congress was also held to coincide with these celebrations in New York City. Still being closely aligned with the field of Ophthalmology, the AOS decided to host the First Congress of the International Otological Society, to be held in New York at the conclusion of the Ophthalmologic meeting. The Committee for planning this event included D. B. St John Roosa, Clarence Blake, Herman Knapp, and J. Orne Green, important early members of the AOS. The meeting participants were a veritable "who's who" of the burgeoning field of Otology during this time period, with several international luminaries joining the meeting, including Hjort (Norway), Löwenberg (Paris), Moos (Heidelberg), Politzer (Vienna), and Voltini (Breslan). The meeting concluded with the designation of the location of the next meeting in association with the International Ophthalmological Congress, with organizational arrangements made by Professors Voltini, Politzer, Moos and Löwenberg. The report of this meeting was put together by a committee appointed by D. B. St John Roosa and was composed of Charles J. Kipp, Arthur Mathewson, J. S. Prout, and J. D. Rushmore, and was Published in 1877 by D. Appleton and Co, New York (Fig. 6) (19). As the publication notes, "...at noon on the 15th of September, 1876, under the lead of the American Otological Society, the

International Otological Society was organized' (p.4). From there the publication included the drafted constitution of the International Otological Society, and it was advised that all members of the AOS be admitted to membership in the International Otological Society. The structure of the Report of the International Otological Society closely followed those of the Transactions of the AOS. This included a "Report on the Progress of Otology 1875-1876" by Burnett and Blake, divided into two parts—Part I Anatomy and Physiology, and Part II Pathology and Therapeutics. This was followed by a series of clinical reports, many from the same frequent contributors to the Transactions: Burnett, Knapp, Mathewson, Buck, Hunt, Holmes, Löwenberg, Blake, Pomeroy, St John Roosa, and Green.

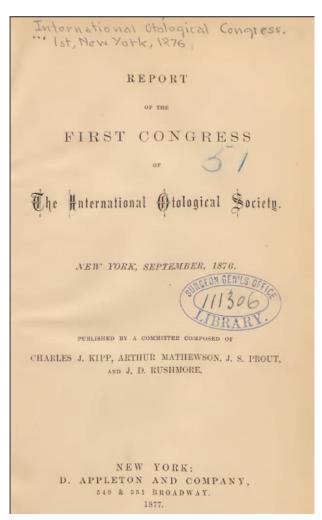


FIG. 6. Title page from the Report of the First Congress of the International Otological Society which took place in New York in 1876, 100 years after America's independence. It was published by American Otological Society members Charles Kipp, Arthrur Mathewson J. S. Prout, and J. D. Rushmore.



FIG. 7. Clarence John Blake (1843–1919) was one of the most distinguished early members of the American Otological Society. After studying with Adam Politzer in Vienna, he returned to Boston to become aural surgeon to the Massachusetts Eye and Ear Infirmary, and later a Professor of Otology at Harvard in 1868. He would found the original *American Journal of Otology*.

THE AMERICAN JOURNAL OF OTOLOGY: 1879–1883

While most contemporary otologists recognize that our Society's journal, Otology and Neurotology, was originally named the American Journal of Otology, begun in 1979, few realize that the original American Journal of Otology was begun in 1879, exactly 100 years prior (Fig. 1). Clarence John Blake (1843–1919) (Fig. 7) was considered one of the most distinguished early members of the AOS. He was also considered a true clinician scientist of his day (20). He went to Boston Latin school, followed by Harvard Medical School, graduating in 1865 (21). He then studied abroad with Adam Politzer in Vienna, subsequently becoming his assistant. The Archiv für Ohrenheilkunde was begun in 1863 by Politzer, von Troeltsch, and Schwartz (6), and this publication no doubt influenced the young Blake during his training in Europe. Upon Blake's return to the United States, he became aural surgeon to the

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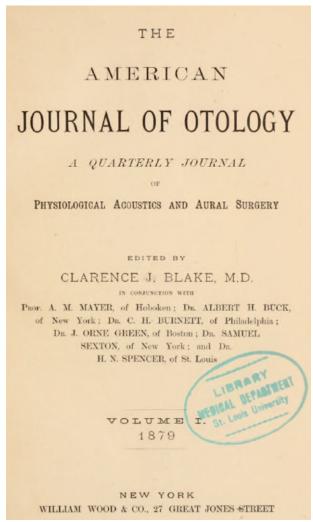


FIG. 8. The original *American Journal of Otology* was started in 1879 by Clarence John Blake. It ran for 4 years, through 1883. Many of the same contributors to the *American Journal of Otology* were also frequent contributors to the Transactions, and included many of the founders and early members of the American Otological Society.

Massachusetts Eye and Ear Infirmary, and later a Professor of Otology at Harvard in 1868 (21). During his tenure, he formed a scientific relationship with Alexander Graham Bell, and together they performed some critical early experiments on the telephone, beautifully researched by Snyder (22).

Blake founded and edited the original four volumes (1879–1882) of the 19th century version of the *American Journal of Otology* (Fig. 8). The impetus for the journal, in Blake's own introduction to volume 1, was based on his fascination with the science behind such recent inventions as the telephone and the phonograph: "The past ten years have seen a remarkable increase in the interest in the study of the laws which govern the production and propagation of sonorous vibrations, and correspondingly in the study of the structure, functions and diseases of the complicated apparatus which enables us to appreciate that mode of

motion to which we give the name of sound" (8). Blake was fascinated by how these devices would inform our understanding of hearing, even more than what he termed, "...the practical advantages" that these devices offered the public. Blake thus sought to develop a scholarly journal that explored the basic science behind sound and hearing, as well as provide a medium to communicate advances in aural surgery.

The style of the journal was based on the Archiv für Ohrenheilkunde, which is no coincidence since Blake trained directly with Politzer in Vienna shortly after the founding of that journal. In the contemporary American Journal of Otology (see below), there were two manuscripts, in 1994 and 1995, that highlighted features from the original journal (23,24). There were only four volumes of the American Journal of Otology, with many of the same individuals contributing to the journal as to the Transactions, with prominent publications by Blake himself, Buck, Sexton, Greene, Knapp, and Burnett. It is not known why the journal stopped after four volumes, though it is perhaps this repetition of the same authors publishing in all these mediums with limited material that led to the journal's ultimate demise. In fact, these early AOS leaders were incredibly prolific, producing contributions not only to the Transactions and the many other new journals being developed, but also in the creation of numerous textbooks in otology (Table 1).

HISTORICAL PUBLICATIONS

From its inception, the AOS has been an able steward of the history of the specialty in general, and the Society itself. In the Transactions of the 59th annual meeting in 1926, the acting President, Dr. Thomas J. Harris, who presided over the incorporation of the Society (henceforth named the American Otological Society, Inc.) during this same year, delivered his presidential address on, "The Early History of the American Otological Society With Special Reference To Its Founders" (25). This speech was the first documented history of the Society itself, and recapitulated much of the history found in the early Transactions.

The 100-year anniversary was a momentous occasion, and required something more in-depth. "After four score and ten it seemed high time that a history of the world's senior Otological Society should be written," wrote Edmund P. Fowler, who served as the Chairman of the AOS History Committee until his untimely passing on October 7, 1966 (26). The history committee was comprised Edmund Fowler, M.D., along with Lawrence Boies, M.D., (who took over as chair after the untimely death of Dr. Fowler), Victor Goodhill, M.D. (who also passed away during the writing of the history), Moses Lurie, M.D., Philip Meltzer, M.D., Ben Senturia, M.D., and George Shambaugh Jr, M.D. Together these individuals created a comprehensive "History of the American Otological Society, Inc. 1868-1968," and was published by the Society in hardcover (Fig. 9) (26). Rather than simply recap the first 100 years of the Transactions, the

HISTORY
OF THE
AMERICAN
OTOLOGICAL SOCIETY, INC.

1868 · 1968

FIVE SCORE YEARS
OF PROGRESS

PUBLISHED BY THE SOCIETY
TO COMMEMORATE ITS ONE HUNDREDTH ANNIVERSARY

OF THE
AMERICAN

1868 • 1993

OTOLOGICAL SOCIETY, INC.

SIX SCORE AND FIVE YEARS
OF PROGRESS

PUBLISHED BY THE SOCIETY
TO COMMEMORATE ITS ONE HUNDRED TWENTY-FIFTH ANNIVERSARY

FIG. 9. On the 100th year anniversary of the Society, in 1968, a taskforce led by Edmund P. Fowler, and for whom the issue was dedicated following his death, created a comprehensive History of the American Otological Society (*left panel*). For many years this was given as a gift to all new members to the American Otological Society. When the original print run was exhausted, and in celebration of the 125th year anniversary, a "2nd edition" was created that updated the history through 1992 (*right panel*). Both editions are available as downloadable files from the American Otological Society website.

committee "...thought it advisable to tell of the available particulars of the formation and early years of the Society, the personalities of some of the members, and especially some of the discussions at the early meetings"

(intro page viii). What followed was a comprehensive history of the Society from its founding shortly following the end of the civil war to the tumultuous 1960s. The work is broken into the following sections:

 TABLE 1. Books published by the founders and early leaders of the American Otological Society

Year	Author	Title	
1873	Williams, A. D. ^a	Diseases of the ear, including the necessary anatomy of the organ. Cincinnati, <i>Robert Clarke & Co.</i>	
1874	Roosa, D.B. St. John	A practical treatise on the diseases of the ear including the anatomy of the organ. New York, <i>William Wood</i> . (second edition)	
1877	Burnett, Charles H.	The ear: Its anatomy, physiology, and diseases. Philadelphia, Henry C. Lea's Son.	
1880	Buck, Albert H.	Diagnosis and treatment of ear diseases. New York, William Wood.	
1883	Pomeroy, Oren D.	The diagnosis and treatment of diseases of the ear. New York. Bermingham	
1889	Burnett, Charles H.	Diseases and Injuries of the Ear: Their Prevention and Cure (Practical Lessons in Nursing). Philadelphia. <i>JB Lippincott</i>	

[&]quot;A. D. Williams was an early member of the American Otological Society who joined in 1870. However he resigned in 1871 as noted in the minutes from that meeting. In contrast, Elkanah Williams from Cincinnati was elected as the first AOS president.

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Year	Author (s)	Title
1868-1899	Edmond P. Fowler, M.D.	The Founding Fathers and the Early Decades
1900-1919	Moses H. Lurie, M.D.	The Old Order Passeth
1920-1939	Philip E. Meltzer, M.D., and Lawrence R. Boies, M.D.	The Science of Otology— Audiometric Threshold and Above Thresholds measurements, Research Fund of the Society
1940-1959	Lawrence R. Boies, M.D.	Sulfonamides, Penicillins and "Mycins," Fenestration Stapes Surgery
1960-1968	Ben H. Senturia, M.D.	Better Understanding of Surgical Rehabilitation of Hearing More Accurate Diagnostic Tests

The work ends with a section entitled, "The Second One Hundred Years – Musings and Dreams of Things to Come" by Edmund Fowler. Some of Dr. Fowler's predictions have yet to come true, including that "We will discover what causes the primary lesion of Meniere's symptom complex and the true relationship of the

labyrinth pressure changes to the triggering of the attacks," or "We will more and more use the metric system," or "Electronic computers will be perfected so that it may even be able to discuss with the otologists difficult diagnostic problems." However, he also made some prescient observations, including "The day of the specialty hospital will be over and all hospitals will be so crowded with patients that they will be compelled to increase their dependence of so-called "government grants", which are really monies taken from the population at large." He also predicted rising costs of medical testing, and that "Direct stimulation of the cochlear nerve will from time to time, be discovered" (though he incorrectly predicted it will never enable a patient to readily hear speech). He also correctly predicted that women would one day join the Society, which he considered "...an improvement on the sad, bored, and helpless decorum of the countenances worn late in the afternoon sessions by some of our male audiences."

As noted, Dr. Fowler died during the creation of this volume, and thus the publication was dedicated to him: "An active member of the American Otological Society for forty-eight of its one hundred years, Dr. Fowler's

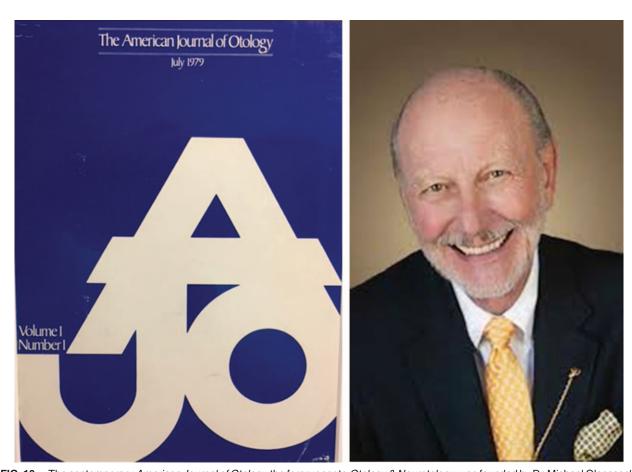


FIG. 10. The contemporary *American Journal of Otology*, the forerunner to *Otology & Neurotology*, was founded by Dr. Michael Glasscock, III (*right panel*) in 1979. The cover of the inaugural edition (*left panel*) is shown (courtesy of David Haynes, M.D.). Dr. Glasscock was the Editor-in-Chief from 1979 through 1989.



FIG. 11. Dr. Gary Jackson was another of the founding members of the *American Journal of Otology*, and took over as Editor-in-Chief of the journal in 1989.

energy and enthusiasm were instrumental in making possible this History of the Society."

The volume was a great success, and tradition dictated that following its publication, each new member of the Society received a copy of the History (27). Furthermore, there were ongoing requests from libraries and other societies for copies. As a result, during the Council meeting in 1988, the Editor-Librarian reported that the supply was depleted and requested the Council approve funds for a new printing. As noted by Wesley Bradley, M.D., in the ensuing discussion a number of options were proposed, and eventually a committee was appointed to revise the history into a second edition, that would coincide with the Society's 125th year anniversary (27). This new committee, chaired by Wesley Bradley, also included Dr.'s Thane Cody, Joseph Farmer Jr, Robert Kohut, Brian McCabe (asked to join because of his editorial experience), Cary Moon Jr, and Dekle Taylor. The 125th year anniversary second edition was published in 1993, also by the American Otological Society Inc (Fig. 9) (27). The structure of the text mirrored that of the 100 year Anniversary publication, including all of its original text. In addition, several sections were folded in, including the years 1968-1992, and additional sections labeled "Acoustic Neuroma and Skull Base Surgery, Electrical Stimulation of the Auditory System, Molecular Basis of Genetic Deafness, Beginnings of Otology-Neurotology as a Separate Specialty Under the Board" by Brian McCabe; an Overview of the American Otological Society 1968–1993 by Wesley Bradley, M.D.; and updated lists of the Guests of Honor, Members of the Society, deceased members, and past officers and presidents, and sites of the annual meetings. Today, both the 100 and 125 year histories can be found on the website of the AOS as a downloadable portable document format (PDF).

OTOSCLEROSIS

One of the defining diagnoses within otology is otosclerosis. It is thus not surprising that the AOS produced two publications reviewing this important topic. The reader is referred elsewhere for the complex and fascinating history of the treatment of otosclerosis, from the original description of the pathologic lesion to Shea's successful stapedectomy (28–32). However, while the treatment of otosclerosis today is a relatively straightforward operation, in the 1920s it was considered one of the foremost challenges to solve by the Society. At the 57th meeting of the AOS in June 1924, Dr. Arthur Duel set forth a plan for the "... solution to the problem of Otosclerosis" (33). This plan involved the development of a scientific committee to create a perpetual fund for otosclerosis research, under the direction of a permanent "Central Bureau," and was seeded by a grant from the Carnegie Corporation with \$90,000. One of the first actions of the otosclerosis committee involved completing a complete "résumè" of the literature on otosclerosis up through 1928. The two volume set was edited by Dr. Duel, along with the following members of the otosclerosis committee: Norval H. Pierce, M.D., Eugene A. Crockett, M.D., James F. McKernon, M.D., and J. Gordon Wilson, M.D. (33,34). The volumes were subdivided into four sections: volume I, containing sections I and II, included a summary of the literature on pathology and etiology of otosclerosis. Sections 3 and 4 from volume two included symptoms and diagnoses and treatment of the disease. Eight years later, in 1936, a third volume was produced by the Central Bureau, and edited by Arthur Duel and Edmund P. Fowler (35). This third volume reviewed the otosclerosis scientific literature from the end of volumes 1 and 2 in 1928 through 1935. The volume was published in cooperation with the journal Annals of Otology, Rhinology and Laryngology that same year in the hopes it would achieve a wider circulation than the printed book alone (36). Furthermore, the number of subject headings was greatly increased, reflecting the growing scientific literature on the topic. A 4th volume of the AOS—Central Bureau of Research Otosclerosis series was published in 1946. This thin folio was much shorter than the earlier ones and summarized 20 years of progress.

THE AMERICAN JOURNAL OF OTOLOGY: 1979-PRESENT

In 1979, the *American Journal of Otology* (AJO) was "reborn," under the direction of Dr. Michael Glasscock

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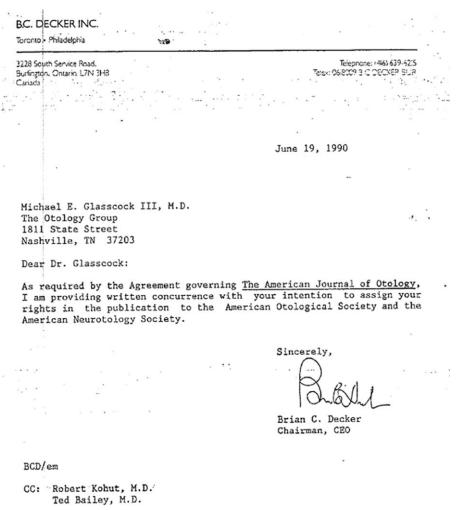


FIG. 12. While under Dr. Jackson's leadership, ownership and rights of the *American Journal of Otology* was transferred jointly to the American Otological Society and the American Neurotology Society, in 1990. This document confirms that arrangement.

(Fig. 10). "Welcome to the American Journal of Otology" he wrote in his introductory editorial (37). The editorial noted that the first edition was published exactly 100 years prior. However, when the AJO was conceived, Dr. Glasscock admitted he was unaware of the prior version of the journal, and only learned of its existence from a colleague. Dr. Glasscock originally started the journal to provide a unique voice that also represented the viewpoint of surgeons in private practice, a group that included himself, and whom he felt were largely left out of the academic conversation (ME Glasscock, 3rd., personal communication, 2017). He noted that other journals at the time tended to be dominated by individuals from academic medical centers, and thus he wanted to bridge the "town-gown" academic and private practice divide with a new publication where he could have control over content and direction. The journal started as a quarterly publication from B.C. Decker Publishers, chosen because Dr. Glasscock knew the publisher personally and had worked with him on some prior projects, and included such features as a "Forum" sounding board for anyone who wished to express an opinion on any aspect of otology. He also set aside a regular section for history, and included a "how I do it" feature. He concluded his editorial, "It is our desire to make the America Journal of Otology an informative and enjoyable publication" (37).

The first edition also contained seven manuscripts, including such diverse topics as the fenestration operation (Shambaugh), glomus tumors (Fisch), ossicular chain reconstruction (Austin), stapes surgery (Sheehy, Nelson, and House), basic auditory physiology (Bess, Forrest and Humes), vestibular schwannoma versus vascular loops (Brookler and Hoffman), and endolymphatic sac surgery for Menière's (Belal and House). Interestingly, there were several letters to the editor in this first edition. While most were congratulatory, one prominent head and neck surgeon wrote to question "...the need for a new journal devoted solely to Otology" (38). According to Dr. Glasscock, this

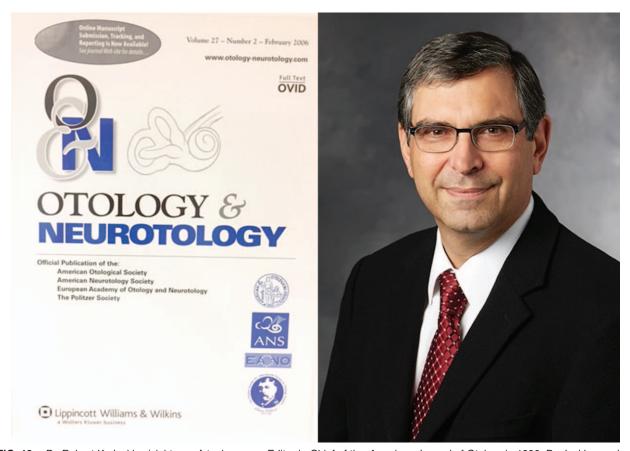


FIG. 13. Dr. Robert K. Jackler (*right panel*) took over as Editor-in-Chief of the *American Journal of Otology* in 1996. Dr. Jackler made a number of critically important changes to the journal, including the implementation of an electronic manuscript submission system, a more rigorous peer-review process, and expanded the editorial board to reflect the growing international contributions to the journal. Additionally he oversaw a change in the journal cover and a change to its present name-*Otology & Neurotology*, to represent the importance of neurotology as a journal focus (*left panel*).

was a sentiment shared by many academic physicians at the time (ME Glasscock, 3rd., personal communication, 2017). Fortunately this one letter writer was incorrect of his assessment of the potential future success of the journal, which flourished over the following decade.

In 1989, Dr. Glasscock stepped down as the Editor-in-Chief, and appointed his partner in the Otology Group in Nashville, C. Gary Jackson, M.D. (Fig. 11) as his successor (39). Dr. Jackson was one of the founders of the journal and an early, active contributor. Under Dr. Jackson's stewardship, the journal continued to thrive and grow. In 1990, Dr. Glasscock generously transferred ownership of the journal jointly and equally to the AOS and the American Neurotology Society (Fig. 12).

After 7 years at the helm of the journal, Dr. Jackson stepped down, and after a national search conducted by the ownership societies, Robert K. Jackler, M.D. (Fig. 13) was selected as the new Editor-in-Chief, in 1996 (40,41). Under Dr. Jackler's stewardship, the journal made a number of important and transformative changes. A new publisher, Lippincott-Raven was chosen to further

the mission of the journal. In 1996, the AJO had one of the first websites of any medical journal, with the original HTML programming done by Dr. Jackler himself. Furthermore, a new electronic-based submission system was implemented, along with the requirement for a structured abstract. Dr. Jackler also brought a new, more rigorous scientific peer-review process to ensure higher quality manuscripts, and expanded the Editorial Board to reflect the growing international appeal of the journal. In 2001, to reflect the growing importance of Neurotology within the subspecialty, the journal officially changed its name to Otology & Neurotology, while the journal cover itself underwent a change to a more contemporary look (Fig. 13). During this time the journal's cover also acknowledged the growing relationships with international societies, including the Politzer Society, and the European Academy of Otology & Neuro-Otology (EAONO).

After a decade of transformative changes, Dr. Jackler stepped down as Editor-in-Chief, and was replaced by John Niparko, M.D., in 2006 (Fig. 14) (42,43). In is

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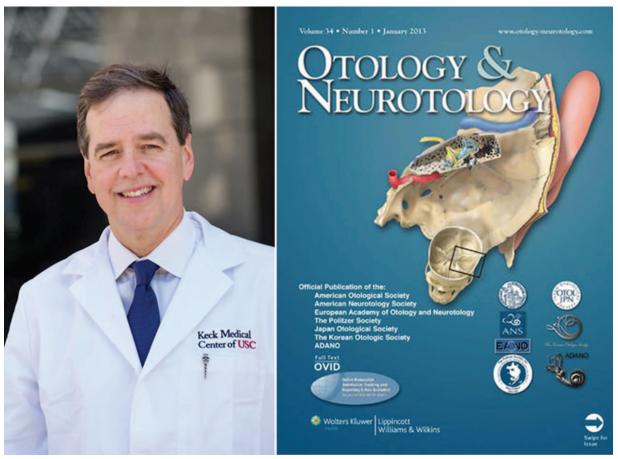


FIG. 14. In 2006 Dr. John K. Niparko was named as the new Editor-in-Chief. Under Dr. Niparko's leadership, a series of important changes occurred, most notably an emphasis on quality reviews and a rigorous peer-review process that enabled the journal to reach new citation index highs. Under Dr. Niparko's leadership, the journal cover also underwent another change to reflect the importance of skull base surgery as a core part of the journal's mission.

introductory Editorial, Dr. Niparko emphasized the importance of the peer-review process (43). As noted by Dr. Niparko, "You and I are charged with building on a legacy through our own inventiveness and refining the creative ideas offered by our peers." This emphasis on quality reviews would help shape his exemplary leadership, which was instrumental in bringing the journal into our current era, with the journal reaching new citation index highs. During his legacy, he modernized the peer-review process for the journal, and personally oversaw many of the manuscripts that came through O&N. Under Dr. Niparko's leadership, the journal cover also underwent another "facelift" in 2011 (Fig. 14), to reflect the importance of skull base surgery as a core part of the journal's academic mission. After a decade of outstanding leadership, Dr. Niparko announced his desire to step down as the Editor-in-Chief in 2016, and shortly afterward, unexpectedly passed away (44). In 2016, I was honored to follow in the footstep of my mentors and predecessors in assuming this role.

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Today, the success of the journal continues, with an ever-increasing number of publications since 1979. Since its inception, Otology & Neurotology has approximately 6,800 unique citable manuscripts and publications (Fig. 15). Yet through all the years of success and growth, the core mission of the journal has remained the same as when Dr. Glasscock founded it nearly 40 years ago, to keep it a publication that is both "informative and enjoyable" (37).

SUMMARY

The AOS has been on the forefront of advancing the science of auditory and vestibular physiology, and art of ear medicine since its founding in 1868. Its members have propelled the specialty to places the founders of the AOS could only dream. For 150 years, through its publications, the AOS has provided a critical forum to debate these advances, highlighting treatment successes and failures, and served a place to celebrate its history. Dr. Edmund Fowler summed up the outlook of the future

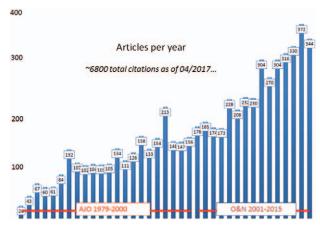


FIG. 15. The journal has shown outstanding growth since 1979. Each bar represents the number of citable manuscripts within PubMed in a given year, beginning in 1979 and going through 2015. The y-axis represents the number of citations for that year. The absolute number is listed at the top of each bar. Data are compiled through April 2015, and thus the complete 2015 numbers are not as high as 2014 in the graph, though in reality 2015 exceeded the number of citations as compared to 2014.

of our specialty most presciently in his forward to the 100-year anniversary history:

We are on the threshold of great strides into the unknown; let us not hesitate in our search for the truth (for the cause of the cause), hoping to get closer and closer, always realizing that we will never know it all. If we ever presume to be omniscient, we will be putting ourselves on the level of whatever gods man has believed there be.

Edmund P. Fowler, M.D. 1968 (26)

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