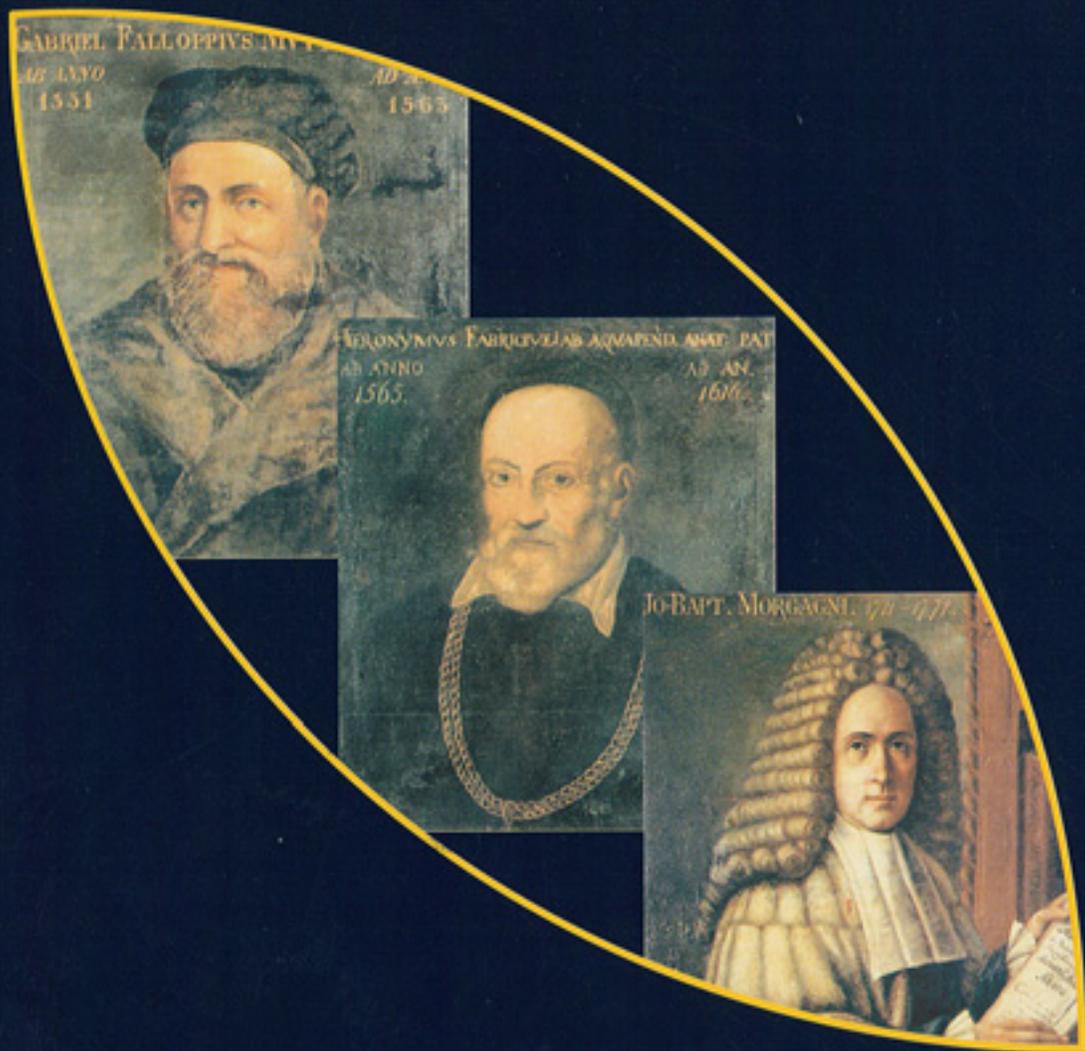


Dino Felisati

Giorgio Sperati



Italian ORL Society **Past and Present**

Società Italiana di Otorinolaringologia e
Chirurgia Cervico-Facciale

Società Italiana di Otorinolaringologia e
Chirurgia Cervico-Facciale



Italian ORL Society Past and Present

Dino Felisati

Giorgio Sperati

Translation by Marian Shields

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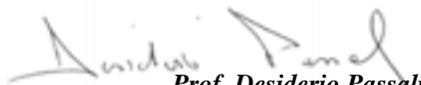
PRESENTATION

It gives me great pleasure to present to the Delegates of the XVIII International Federation of Otorhinolaryngological Societies Congress this Volume, edited by Dino Felisati and Giorgio Sperati.

It describes the history of the ORL Specialty in Italy as well as the life of the Italian Otorhinolaryngological Society; the Authors show, once again, their vast knowledge and capability to correctly illustrate interesting and important moments of Society life, which deserve to be emphasized.

My gratitude is also extended to these two friends for the valid support they have offered me, in a moment that has totally engaged me, my family and my Collaborators in preparing this Congress. For several months, we have been dedicated to organizing, in the best way possible, this extraordinary event aiming to satisfy all the scientific and social needs of those who have enthusiastically accepted our invitation.

In wishing you pleasant reading, I hope that our efforts will reinforce our friendship and scientific collaboration.

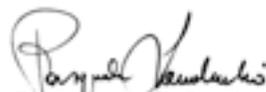


Prof. Desiderio Passali

President of IFOS XVIII International ORL Congress

In preparing this Volume, Dino Felisati and Giorgio Sperati, wanted to share their personal experience and to offer our readers the opportunity to re-live the history of the ENT Specialty in Italy and the history of the Italian Society of Otorhinolaryngology and Head and Neck Surgery (S.I.O. e Ch. C.-F.). Both Authors are well known to our many colleagues, so who better than these two greatly esteemed colleagues, who have dedicated their professional activities to our Specialty, and have made no secret of their passion for the history of medicine, could have achieved this goal.

The aim not only of the Authors but also the Society is that this Volume and the contents thereof become an instrument that, in reflecting on these events, will involve also our colleagues attending the International IFOS Congress in Rome. The Volume is dedicated to all our guests, and the Italian Society (S.I.O. e Ch. C.-F.) hopes that it will bring great pleasure.



Prof. Pasquale Laudadio,

President of the Italian Society of Otorhinolaryngology and Head - Neck Surgery (S.I.O. e Ch. C.-F.)

INTRODUCTION

In greeting Colleagues who have gathered from all over the world to be present here in Rome for the XVIII World Congress of the International Federation of Otorhinolaryngological Societies (I.F.O.S), the Italian Society (S.I.O. e Ch. C.F.) wishes to welcome all participants with this token of friendship: an introduction to the history and birth of the specialty Otorhinolaryngology in Italy and the history of the Italian Society of Otorhinolaryngology, one of the first born at the end of the 19th Century, when medical specializations appeared on the international scene. Prior to that time, the only specialties that existed were: Obstetrics, Odontoiatrics, Ophthalmology, Dermatology, Otology etc. These were mainly cultural manifestations with a modest scientific content. The first Specialties appeared in the mid 19th Century when scientific research methods, focusing on detail, even the very smallest, led to the idea of separating knowledge, exactly as in economics, in which the various aspects of work were being increasingly separated.

The Specialty of ENT stemmed from a complex process with a long and difficult gestation. Factors of a *cultural, institutional* and *associative* nature became involved. The fundamental and qualifying moments in this fascinating story that witnessed the growth of our Specialization, finally becoming the Speciality of Head and Neck Surgery were:

- the birth of Laryngology and Rhinology, approached by exploration of the larynx and rhinopharynx, which had never been carried out before that time;
- the involvement of the University and Hospitals in the teaching and practical use of these new disciplines;
- the foundation by a handful of pioneers, of the *Società Italiana di Laringologia, Otologia e Rinologia (S.I.L.O.R)*, in 1892.

The history of S.I.L.O.R. is a story spanning more than a Century, which step by step, has followed the evolution of the Specialty, both from a cultural and a social point of view. Clinical practice, in fact, has to bear in mind the development of scientific and technical knowledge, on the one hand, and, on the other, the problems related to patient-care which in every developed country has reached such proportions that the activity, not only of the family doctor but also the specialist, are conditioned by them. Throughout these long years, facts hav-

ing an impact on the role of the Specialists have been taken into account, attempting always to keep the specialty united but above all to increase the added value of healthcare, paying attention to quality and observation of ethical regulations.

Many events have left their mark on the various phases of the Society's history: there can be no doubt that the most important was the "*rifondazione*", - the new foundation - which occurred in 1976 that, by way of a process of integration between the two fundamental components, University and Hospital, gave not only new lymph and closer solidarity but also a more modern Society: *Società Italiana di Otorinolaringoiatria e Chirurgia Cervico-Facciale (S.I.O. e Ch. C.-F.)*. This important step was followed by the creation of a scientific journal *Acta Otorhinolaryngologica Italica* that now publishes articles in English.

From a historical viewpoint, a few special events occurring in Italy over the last quarter of a century are worthy of mention:

- the 10th International ORL Congress organized by Michele Arslan, in Venice, in 1973;
- the 2nd European ORL Congress organized by Giovanni Motta, in Sorrento, in 1992;
- the present 13th International ORL Congress prepared by Desiderio Passali, in Rome.

The European Congress in 1992 provided the opportunity to celebrate, together with our foreign Colleagues, the Centenary of our Society.

S.I.O. e Ch. C.-F. has its Headquarters in Rome, the premises of which belong to the Society and house the Archives, Library and Museum. These Headquarters are used for Board meetings, cultural events, Continuing Medical Education Programmes (*E.C.M.*). Representatives from the affiliated and joint specialities also have the use of these premises. The Library contains the Society publications, the official journal *Acta Otorhinolaryngologica Italica*, as well as journals received on an exchange basis. There is also a valuable collection of volumes related to ORL and many books that have been left by Society members who have passed away. The Museum contains a variety of historical instruments, both of diagnostic and therapeutic interest; these have been classified according to the type of disease and have been used to set up displays in several Congresses.

Dino Felisati

Giorgio Sperati

The origin of the ORL Speciality in Italy

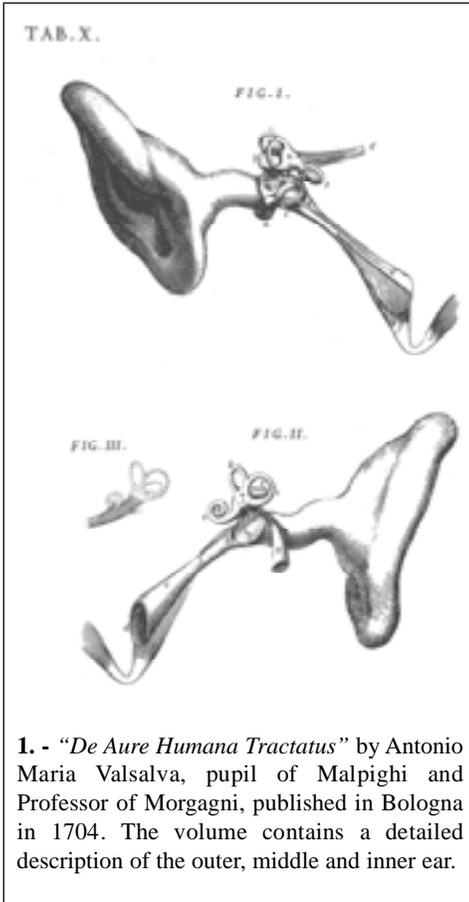
I

The Specialty Otorhinolaryngology was born in the second half of the 19th Century. Until then, diseases of the ears, nose and throat had been treated separately, as if the three organs were independent one from the other. It was in the 19th Century that, for a series of reasons which we will discuss later, the idea spread that, from a physio-pathological point of view, close correlations existed between the nose, ears and throat and that many disorders of these three districts influenced one another, therefore, the physician's studies and professional practice should focus on all three organs together.

Let us see how doctrine and practice actually came together leading to the formation of Otorhinolaryngology.

From a philosophical viewpoint, the 19th Century is that in which two schools of thought which had characterized the previous centuries, come to a crisis: the *rationalist* thought, the origins of which came from Cartesian *cogito, ergo sum*, degenerating into idealism, vitalism, brownism; the *empiric* thought evolving into *positivism*, with the philosophy of Comte, which finally degenerated into *experimentalism*. We owe to Immanuel Kant (1724-1804) the merit of having taught us not to abuse speculation and to Claude Bernard (1813-1878), the idea that the "Man of Science" should endeavour to achieve a synthesis between rationalism and experimentalism. Therefore, it is not difficult to understand why the 19th Century was the century characterized by great scientific discoveries which led to the birth of new specialties, such as Microbiology, Immunology, Histology, Experimental Physiology, Experimental Pharmacology and new techniques, such as asepsis, antisepsis, local and general anaesthesia which greatly contributed to the development of surgery.

From ancient times and until then, studies had focused primarily on Anatomy. Starting with Alcmeone (6th-5th Century B.C.), who appears to



the structure and function of the inner ear: *Anatomicae disquisitiones de auditu et olfactu* (Pavia, 1789). In the 17th and 18th Century, physiological research developed and with Giovanni Battista Morgagni (1682-1771), a medical giant of the 18th Century, pathology took on a modern form. At the same time, endoscopy and use of light sources were being improved. Of the three organs comprising our speciality, the ear was certainly the

have been the first to perform anatomical dissections, then Gale-
no, and, thereafter, the famous
School of Padua in the 16th Century,
gradually the anatomical secrets of
the human body were revealed and
great interest was taken in the study
of sense organs, which are so close-
ly related to our own discipline.
Antonio Maria Valsalva (1666-
1723), in 1704, published *De Aure
Humana*, Domenico Cotugno, in
1761, described the labyrinthine
liquids and the name of Antonio
Scarpa (1747-1832) became linked
to important discoveries regarding





3. - Giovanni Battista Morgagni, Professor of Anatomy in Padua, founder of modern pathological anatomy. His volume "*De sedibus et causis morborum per anatomen indagatis*", published in Venice, in 1761, was a milestone in the history of medicine.

most studied and, from a clinical point of view, the best known and treated. The Otologists were also surgeons and this tradition will have an effect, as we shall see, when fusion of the three ENT disciplines actually becomes reality.

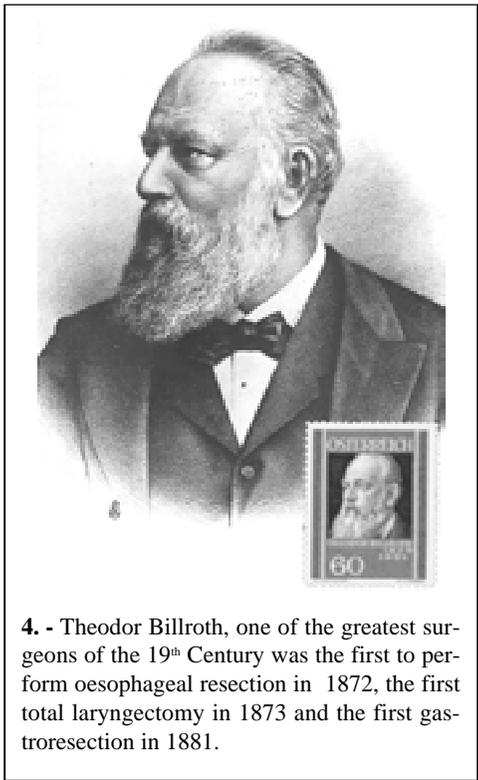
The 19th Century is also the time when the work was further divided. This occurred in the industrial field which constantly required greater specialization in order to gain the best advantages in production, but this also took place in the scientific field, in the conviction that the search for truth should be focused on greater detail. As E. Isambert writes in 1875: *Les spécialités sont, en effet, un des besoins, et nous pourrions ajouter un des modes de progrès les plus réels de la science*

moderne. En médecine, comme partout ailleurs, la division du travail est devenue une nécessité. Le temps de savant universel est passé. The evolution of the embryo and cell differentiation appear to be indisputable confirmation of this new approach (Milne-Edwards, Spencer).

The international panorama, in the early 19th Century, saw France in pole position as far as concerns scientific and technical know-how. England, with the cultural tradition derived from Bacon, developed a practical clinical trend; with regard to care, Buchanan, in 1805, founded an Institute in London, for diseases of the ears and eyes, and still in London Curtis, in 1816, created a hospital for ear disorders. Italy continues with anatomical research studying embryology. Germany was still in the early stages, particularly as far as concerns otology, but was destined to make up for lost time in the second half of the century. Together with Austria, Germany became the centre of major developments in our discipline. The American specialistic culture limits itself to the translation of European books, with

a modest scientific production published in the journals dealing with General Medicine; this was to become, in the 20th Century, the centre of attraction for research workers in all fields of medicine.

In the second half of the 19th Century, there was an explosion in diagnostic and therapeutic medicine - but particularly in surgical treatment. In the German-speaking countries, the development of research was so rapid that it even exceeded that of other countries. This was the time of major expansion both in politics and in the military field. History has taught us that the period of maximum splendour of the arts and sciences coincides with that of the greatest political and economic power of the country in which this is taking place: this was seen in Athens at the time of Pericles, in Imperial Rome, during the Italian Renaissance, in 17th Century France, in 19th Century Austria and Germany, and in present-day America.



4. - Theodor Billroth, one of the greatest surgeons of the 19th Century was the first to perform oesophageal resection in 1872, the first total laryngectomy in 1873 and the first gastrectomy in 1881.

The second half of the 19th Century was the time of the famous “all-in-one” Surgeons: Billroth (1829-1894) and Von Langenbeck (1869-1939) in Austria and in Germany, Cushing (1869-1939) in America; Bassini (1847-1924) and Bottini (1837-1903) in Italy; Paget (1814-1899) and Hutchinson (1869-1939) in England.

Heirlooms of the past left, to future generations, specialities in the embryonal stage: Ophthalmology, Obstetrics, Urology, Paediatrics, Syphilography. They then became autonomous disciplines. Otolaryngology, in the German-speaking countries, developed very rapidly and, in Vienna, became the most important reference point for everyone. Research was carried out on the anatomical and physiological aspects, especially of the

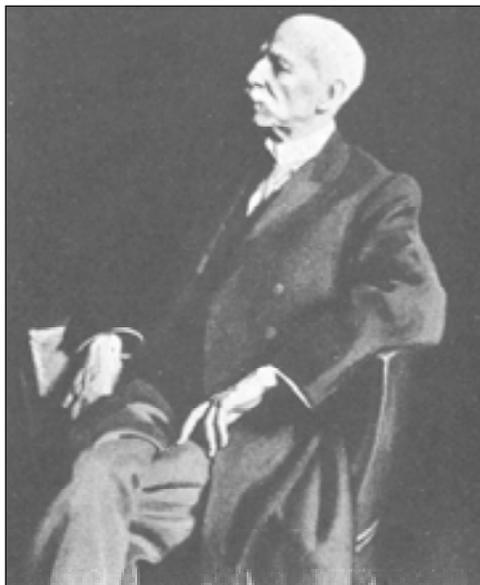
cochlear and vestibular areas; reflex light was used. The study and practice of Otolaryngology then spread to other countries.

THE BIRTH OF LARYNGOLOGY AND RHINOLOGY

It was in this period that *Laryngoscopy* was born which led to *Laryngology* becoming of great importance. Anterior Rhinology was integrated, following the introduction of posterior rhinoscopy, thus offering the possibility to explore the rhino-pharynx. As far as concerns the pathological aspects of this area, the aetiopathogenesis of many ear and throat disorders was recognized. From a cultural viewpoint, this was the most important aspect leading to the unification of the ENT specialization.

Let us analyse these events step by step.

Manuel Garcia, a singing teacher and a singer himself, was obsessed by the idea of being able to see his own vocal chords. In 1854, using a dentist's mirror placed against the palatine vault and sunlight, he managed to project on a mirror, placed in front of his eyes, the image of his larynx. This discovery was immediately used by L. Türck (1810-1868) and J.N. Czermack (1828-1873) to study laryngeal disorders. Thanks to Czermack, laryngoscopy became a popular technique, combining illumination with light reflection and taking the advantage of artificial light. He toured the most important capital cities in Europe illustrating the



5. - Manuel Rodriguez Garcia (1805-1906), in 1854, used, for the first time, and with success, the laryngeal mirror.

technique and his own results. The first biopsies and topical treatments were carried out. Adoption of the technique encountered some difficulties since local anaesthesia was not yet available, being introduced, in 1884, by E. Jelinek, an Assistant of Von Shroetter. This is how Carlo Labus



6. - The *Laryngophanthôme*, created by Carlo Labus, in 1883, to enable doctors-in-training to practise endolaryngeal manipulation manoeuvres.

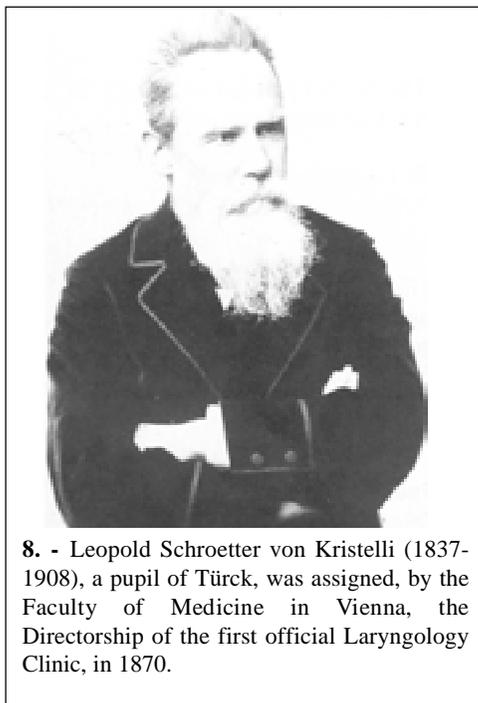
(1847-1917), Ferdinando Massei (1847-1917), Adalbert Tobold (1827-1907) and Jean Garel (1852-1930) invented the manikin which enabled trainees to practise the use of this technique before actually having to carry out explorations on patients.

Laryngology develops as a branch of General Medicine and is practised by Internists and Pneumologists, interested in better understanding disorders of the lower respiratory tract, and only later, the study of laryngeal diseases. Those devoted to this new doctrinal body were not interested in surgery and, indeed tracheotomy and the early



7. - Allgemeine Krankenhaus, the large General Hospital in Vienna, which housed the University Clinics where Türk and Czermak carried out their first experiments on indirect laryngoscopy.

laryngectomies were carried out by General Surgeons (Billroth 1873, Bottini 1875, Caselli 1879). Faced with the problem of diphtheria, E. Bouchut (1818-1891), W. Macewen (1848-1924), but above all, J. O'Dwyer (1841-1898), developed laryngeal intubation, thus avoiding the trauma of tracheotomy. From this time onwards, relationships between Laryngologists and General Surgeons become more tense since the former, who possess these new techniques and competence, want greater space for their profession, while the latter realize that with the appearance of new figures, with specialized qualifications, there is a risk of losing fields



8. - Leopold Schroetter von Kristelli (1837-1908), a pupil of Türck, was assigned, by the Faculty of Medicine in Vienna, the Directorship of the first official Laryngology Clinic, in 1870.

of activity which hitherto had been theirs alone. Throughout Europe, public and private Institutions for Laryngology were set up. In about 1870, in Vienna we would have found a Laryngology Service, Director of which was Schnitzler, a University Clinic, directed by Von Schroetter, and an Outpatient Unit specializing in Laryngology directed by Von Stoerk. In 1862, Merkel set up a Private Polyclinic for Laryngoscopy, in Leipzig. In 1863, Mackenzie, in London, founded the Hospital Institution specialized in laryngeal disorders. In 1870, Voltolini did exactly the same in Breslaw.

In Italy, Labus, after having carried out further studies in the laryngological field in Berlin, accepted, in 1876, the proposal to open an Outpatient Unit for throat disorders at the Ospedale Maggiore in Milan which was destined to become the School of many Italian Specialists. In 1879, he was nominated by the University of Pavia to introduce laryngoscopy as part of the official teaching programme which he then continued until 1883. Labus organized, in Milan, the First International Congress of Laryngology and was elected President of the event. It was on that occa-

sion that a proposal was made for Laryngology to become autonomous. Massei became a private teacher of Laryngology in Naples from 1871 and *Professore Straordinario* in this field, in 1882.

As far as concerns Rhinology, studies and professional practice are still focused on anterior rhinology and on the paranasal sinuses. Nasal specula exist, which are illuminated in various ways. Zuckerkandl in 1882, published a tome *Normale und pathologische Anatomie der Nasenhöhle und ihrer pneumatischen Anhang* which became a reference point for specialists in

this field of pathology. Cozzolino, in Naples, in 1889, developed a rhino-tubo-pharyngoscope which, for the first time, made use of electric light.



9. - Carlo Labus organized the First International Laryngology Conference in Milan, in 1881, attended by 122 experts.



10. - Vincenzo Cozzolino (1853-1911), in 1891, was appointed to teach Otology and Rhinology at the University of Naples.

Albeit, the most outstanding new discovery, of those times, was made by Czermack, in 1868, when turning upwards the small mirror used for laryngoscopy, he actually performed the very first rhino-pharyngoscopy. Rhinology, considered the all-round discipline of naso-sinusal and rhino-pharyngeal disorders, was born at this time. In 1888, Voltolini and Cozzolino introduced transillumination of the sinuses with electric light. Studies on the rhino-pharynx suggested that the disorders of this area were pathogenetic elements of many diseases of the ear, hypopharynx

and larynx. The concept of the responsibility of the rhino-pharynx in the genesis of auricular disease had already been expressed by Bonnet (1802-1858) and Pétrequin (1809-1876), but the time was not ripe for such statements. G. Killian (1860-1921), G. Caldwell (1834-1918), H. Luc (1855 - 1925) A. Nelaton (1807-1873), E. Woakes (1837-1912) are, at this time, the prestigious practitioners of this discipline which developed both as medicine and surgery thus becoming a *trait-d'union* between Otology and Laryngology.

THE IDEA OF A UNIFIED SPECIALITY

The idea of a unified speciality - Otorhinolaryngology - is the result of an evolutive process of ideas of a technical-scientific nature, but the birth of this new speciality had a difficult gestation. Above all, relationships between Otologists and Laryngologists were uneasy: the former have



11. - Sir Felix Semon (1849-1921), of German origin, became one of the most important laryngologists in the United Kingdom. (*Caricature from Vanity Fair, 1902.*)

behind them, a long-standing tradition and are fundamentally surgeons, while the latter are generic physicians. Therefore, they have no surgical background, and, moreover, with laryngoscopy, they believe they have, at hand, a means with which to obtain worthwhile results also for private professional purposes. In 1899, Massei, a Laryngologist from Naples, having read some of the works of Semon - an authoritative German-speaking Laryngologist who, together with Waldeyer, showed a tendency to be against any fusion - agreed with and praised the opinion of this author in a long article published in the *Journal Archivi Italiani di Laringologia* founded in 1881: *The opinion of Semon appears to be the best dam to build against a current that for some time now has been progressing in our particular field and which under the specious flag of the fusion of Laryngology with Otology would attempt, after a hard-fought and victorious battle that we had endured to promote Laryngology to*

an autonomous speciality, to then kill it, after the solemn baptism received by the scientific world, not only at International Medical Congresses but also on other occasions, by uniting it with otology! One of the most terri -



12. - Ferdinando Massei (first on left) during a Congress, in Berlin, in 1868.
(Photo by courtesy of Dr. Pietro Vitto-Massei).

ble acts of autophagy. The attitude of mind of Massei was shared by a large number of specialists who, for a long time thereafter, will continue to profess medicine in a separate manner. It is worthwhile mentioning, moreover, that Massei, as we shall see later, becomes one of the founder members of S.I.L.O.R., created in 1892, thus showing himself, in the end, to be somewhat conciliating.

Another interesting aspect to be taken into consideration concerns the relationship with the newborn speciality and General Medicine. It gave the impression of being the only font of medical knowledge and assumed an attitude which left no room for dialogue. Their real preoccupation, moreover, appeared to be the loss of prestige and power. In his Opening Address, at the officially recognized course on Rhinolaryngology in 1887-88, Pietro Masucci, second in command at the Laryngology Clinic in

Naples, states: ... *just listen to what Schleidinger has recently stated in a public conference; I firmly believe (these are his own words) that there is nothing more dangerous for science, than the continuous analysing, continuous dividing and subdividing, the incessant classifying and sub-classifying, because by so doing, you are going against the first fundamental rule of any discipline, which is never to lose site of "wholeness". Every month, every week, every day, books are produced in which all the cells and cell nuclei are described in minute detail, both in normal and pathological conditions; but try asking these enthusiasts what an organism is, and you will see that they remain completely stunned. The Rhinologyists have concentrated all their intellectual activity on the first respiratory pathways; beyond these, they see nothing, absolutely nothing ... and mutatis mutandis applies also to the other specialities. But Emilio De Rossi, from his Chair of Otology in Rome warns (1892): The scientist should not shrink his brain, by limiting it to a special study, but should continue to cultivate it, and not separate it from the rest of the scientific world which is the basis of medical and surgical culture. He who devotes his time to special branches of medicine, must then avoid that unhealthy pride (Selbstüberschätzung) described by Helmholtz and which is so easy to pick up unilateral intellectual activities.*

With the general surgeons, as already pointed out, the relationship was no better. Billroth, in his writings of 1876, *Lehren und Lernen*, defined Otology as: *that small discipline, however not without importance.*

General Medicine complained of the surgical errors of some unqualified specialists. To prevent quacks and imposters from discrediting the new discipline, Vincenzo Cozzolino, wrote to Grazzi, Director of the *Bollettino*, in 1891: ... *well, to merit the title of Surgical Specialist you would have to undergo an examination, which is much more necessary to-day since the teaching of Otology and Laryngology are not compulsory, like Ophthalmology and Obstetrics. Accept this concept of mine in honour of our pride, in the interest that the practical exercise of our discipline will not be blemished by unskilled workers and in order that our literature is not despised due to publications reminiscent of the times of obscurantism.*

Gradually, fields of activity were being defined for which the competence of the ENT Specialist is mandatory: assistance for the deaf and dumb, consultancy in military medicine and in occupational medicine. Labus sets up

the Istituto Ototerapico in Milan, stressing the need for the presence of Specialists in Institutes for the Deaf and Dumb and Tommaso Bobone from S. Remo expresses the hope that Institutes, similar to that in Milan, will be set up in other parts of Italy. The Railway and Marine Authorities take into consideration the possibility of using oto-laryngologic expertise to identify deaf subjects and patients with laryngeal disorders.

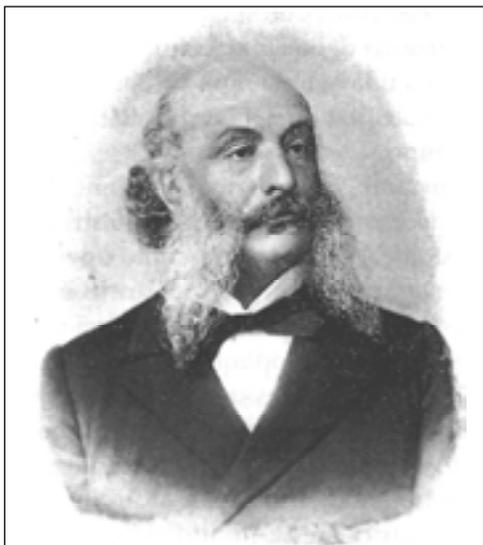
INSTITUTIONAL PHASE

The gestational phase of the Speciality involved two important phases: *institutional* and *associational*.

In order that a new medical discipline becomes stable, it is necessary, above all, that it enters the University and, if possible, recognized as part of the compulsory teaching programme. The University offers the possibility to carry out research, thus enhancing the cultural notions of the discipline itself. At the same time, in the case of the clinical discipline, this should necessarily be practised in the hospital setting, where doctors with

proven experience offer the guarantee of correct use, not only of diagnostic methods but also treatment of the relevant pathological conditions.

Thus, teaching of the disciplines comprising ORL first took place in the private offices of the first pioneers who very soon sought the possibility to teach their discipline in a University setting. Not an easy task, as the Professors, who were already present in the Universities, were very much against introducing new and competitive teaching courses, which meant a challenge to their authority and prestige. Again, conflict was imminent, just as before when fierce competition



13. - Emilio de Rossi (1844-1901) was appointed to teach Otoiatrics in Rome, already in 1871, and was one of the most famous Otologists in Europe.



14. - Count Giuseppe Gradenigo (1859-1926) who was highly esteemed throughout Europe for his important and meticulous scientific research in Otology.



15. - Giulio Masini (1853-1937), the first to practise Otorhinolaryngology in Genoa and one of the most successful research workers in the field concerning the physiology of language and laryngeal nerve centres.

had arisen between the new specialities and General Medicine and General Surgery.

Emilio De Rossi was the first Italian to be nominated responsible, in 1871, for the Otology teaching programme in the University of Rome. In his favour was a volume entitled *Diseases of the Ear* for which he had received the compliments of Schwartze. In 1881, he was nominated *Professore Straordinario* of Clinical Otology and, in 1884, also *Liberio Docente* of Laryngoscopy, which the following year became Laryngology. Both courses are complementary to fifth - and sixth-year studies. In 1881, the Clinic of which he was Director, at the *Ospedale S. Giacomo*, was finally renovated and a team was set up to meet the demands of teaching and patient assistance. In those years, despite many difficulties, De Rossi fought to have the Chair of Otology brought into line with the others and to make Otology part of the compulsory teaching programme in all Italian Universities. On 14th June, 1891, with the application of Art. 96 of the *Casati Law*, De Rossi is nominated *Full Professor* of Otology, an event which was of great importance, also at international level, as this was the

very first post of its kind in Europe. The Casati Law, of 15th November, 1859, concerned the regulations of regarding State Education, and offered the possibility of including the Speciality within the University Programme. The figure of *Professore Straordinario* was foreseen, together with *Professore Ordinario* and *Dottore Aggregato*, who would hold courses and have Chairs in disciplines that had not previously been officially recognized. With this Law, *Libera Docenza* (University teaching) came into force, with the faculty for private tutors to hold courses in compulsory, complementary and similar topics. *Libera Docenza* meant recognition for those involved in Otology and Laryngology on account of the possibility of a career both in the University and Hospital setting.

In 1893, De Rossi together with Gradenigo launched the Journal *Archivio Italiano di Otologia, Rinologia e Laringologia*.

In the last few decades of the 19th Century, we would have found on the Italian University scene:

- In Rome - Emilio De Rossi, as already mentioned;
- In Naples - Ferdinando Massei, Private Teacher of Laryngology from 1871 and *Professore Straordinario* of Laryngology from 1882; Vincenzo Cozzolino in charge of Otology and *Pareggiato* in Rhinolaryngology, from 1894, *Professore Straordinario* of Otorhinology;
- In Florence - Vittorio Grazzi regular tutor for the *Corso Libero* in Otorhinolaryngology from 1883 in the Medical School at the *Regio Istituto di Studi Superiori*, at the *Ospedale S. Maria Nuova* in the University of Pisa;
- In Pavia - Giovanni Longhi, who from 1880 to 1885 held a Course in Otology;
- In Genoa - Giulio Masini in charge of the teaching of Laryngo-rhinology, from 1894, and *Professore Straordinario*, in this teaching area, from 1896;
- In Turin - Giuseppe Gradenigo *Professore Straordinario* of Otology, from 1896.

In 1905, the Clinical Otology and Rhinolaryngology Course becomes the Otorhinolaryngology Course and assigned as complementary to the Fifth-year programme of Medicine studies. The teaching of Otology, initially complementary, became compulsory, in 1920.

Also in the Hospitals, the situation is in great fervour: a few ward, with beds for hospitalisation, were set up in Milan, Naples, Padua and Turin. In other Hospitals, in the large cities, Out-patient units, Dispensaries and Consultancies became available. At the *Pamatone Hospital*, in Genoa, Dr. Durand was put in charge of the Otologic Dispensary, while at the *Ospedale S. Saverio* in Palermo, Dr. Giuseppe Ficano was put in charge as Director of the Dispensary for ear, nose and throat diseases. In Venice, Faustino Brunetti set up the first public Outpatient unit which was free of charge for disorders of the ears, nose and throat.

ASSOCIATIVE PHASE

The associative phase was equally as complex and interesting as that examined so far: the idea of a unified Speciality gains credit and importance as the significance and value become evident. The concept of the embryological, anatomical, physiological and clinical unity of the oto-rhino-laryngological districts and the relationships that these districts



16. - An otoscopic examination illustrated in the Otology handbook *Manuale di Otologia* by Vittorio Grazzi, published in Florence in 1866. Grazzi was the first President of S.I.L.O.R.

have with the adjacent organs (eyes, brain and lungs) and with the organism, as a whole, are the most convincing elements.

As Grazzi pointed out in the *Bollettino*: *In order for medical and surgical teaching to merit the name of "special", the part of the human organism to which it refers must be of great importance. It is necessary that diagnosis of the various pathological conditions that may develop*

in that part or organ may be difficult and give rise to mistaking the condition for another disease, on account of the nature and site, thus resulting in the doctor being dubious concerning the possibility of making a clear diagnosis. In Specialty teaching, equipment and instruments should be different from those ordinarily available, and the persons using these must be adequately trained. Finally, both medical and surgical treatment, if they are to be effective in curing the disease of the particular organ, require an extraordinary theoretical and practical preparation. These are the fundamental points which should form the basis of a Specialty teaching programme and Otolology and Laryngology duly possess all these requisites.

And Trifiletti continues: *Since rhinoscopy was derived from laryngoscopy, it would appear rational not to separate the former from the latter: but rhinoscopy is useful in solving problems related to disorders both of a laryngeal and auricular nature, especially as far as concerns therapeutic applications, by way of the Eustachian tube. Therefore, it would appear to be advantageous not to separate Rhinology from the other twospecial branches.* The first skill that the ENT specialist must display is that of a competent endoscopist; he must be able to handle equipment with expertise, proven with thorough training.

The need to unite ENT specialists into a single Society stems, in turn, from the need to obtain official recognition of the Specialty, to promote scientific and cultural activities, to qualify the Italian Speciality within Europe. Cozzolino, in a letter entitled: *Concerning an Italian Society of Otolology, Laryngology and Rhinology*, sent to Grazzi, in 1891, for publication in the *Bollettino*, wrote: *I do not think, by any means, that the Society should serve as a climbing frame for those aiming to become specialized surgeons merely for enchantment, and not by way of virtue of studies performed with diligence and good results... and nor should a Society exist to serve as a position of authority for anyone, whoever she may be, but should become a scientific arena, to safeguard the interest of all those who work seriously, and who, baptized in a clear fountain, proceed tirelessly along their way, to be up to par and to contribute, as sometimes happens, to practical scientific progress.*

The first proposal to create an ENT Society which appeared in the *Bollettino* in July 1887 was launched by the Milanese Otologists Longhi

and Sapolini who had been cultivating this idea, for many years, but both were aware of the difficulties involved in realizing the project. The Laryngologists, in fact, are in a position of uncompromising independence. Nonetheless, the strength of the ideas prevailed and, in 1891, at the Congress of the Italian Association of Medicine, in Siena, where Otolologists and Laryngologists had their own separate Sessions, the Articles of the Statutes and Regulations of the impending constitution of S.I.L.O.R., which had been prepared by Grazzi, were discussed and approved. There is every reason to believe that the mention of Laryngology first, of the various components of the unified Speciality, is a concession to Laryngologists in order to obtain their consensus. Indeed, Massei who, as a Laryngologist, had opposed this constitution, was then amongst those signing the constitutional documents. There were 21 founder members, representing Italy from North to South. On that occasion, it was decided that the first meeting of the new Society would take place in Rome the following year and, indeed, was duly held, 26-28th October 1892.

S.I.L.O.R, the Society of the unified specialities, was one of the first to appear on the international scene, the *Sociedad Espagnola de Laryngologia, Otologia y Rinologia* following in 1886; *Société de Laryngologie, d'Otologie et de Rhinologie de Paris* in 1891; *Société Belge d'Otologie, de Laryngologie et de Rhinologie* in 1895. However, the various Societies of Otology, or Laryngology, or Rhinolaryngology, which sprung up here and there did not have the characteristics of a unified society.

**The Italian Society of O.R.L.
Head and Neck Surgery**

II

In Italy of the *Risorgimento*, in 1862, doctors had joined the *Associazione Medica Italiana* (A.M.I.) which held its Congress every two years. On that occasion, autonomous sections were created to discuss problems of interest to specialists, thus in the Congress of 1866, 50 Committees and 4000 Society members took part. In the following years, these numbers rapidly decreased, until, in 1887, there were only 4 Committees. It so happened that the various Specialization sectors had started to gather together on their own, gradually breaking away from General Medicine. At the A.M.I. Congress in Turin, in 1886, the first meeting was held of the Laryngology Section, President Carlo Labus, while, in 1889, in Padua, the Section of Otolaryngology, President - Giuseppe Gradenigo, assembled. On that occasion, the desire to create an autonomous specialistic ENT Society was expressed. Also born, at that time, were the



17. - Many Italian Otologists trained in Vienna at the School directed by Adam Politzer (1835-1920).

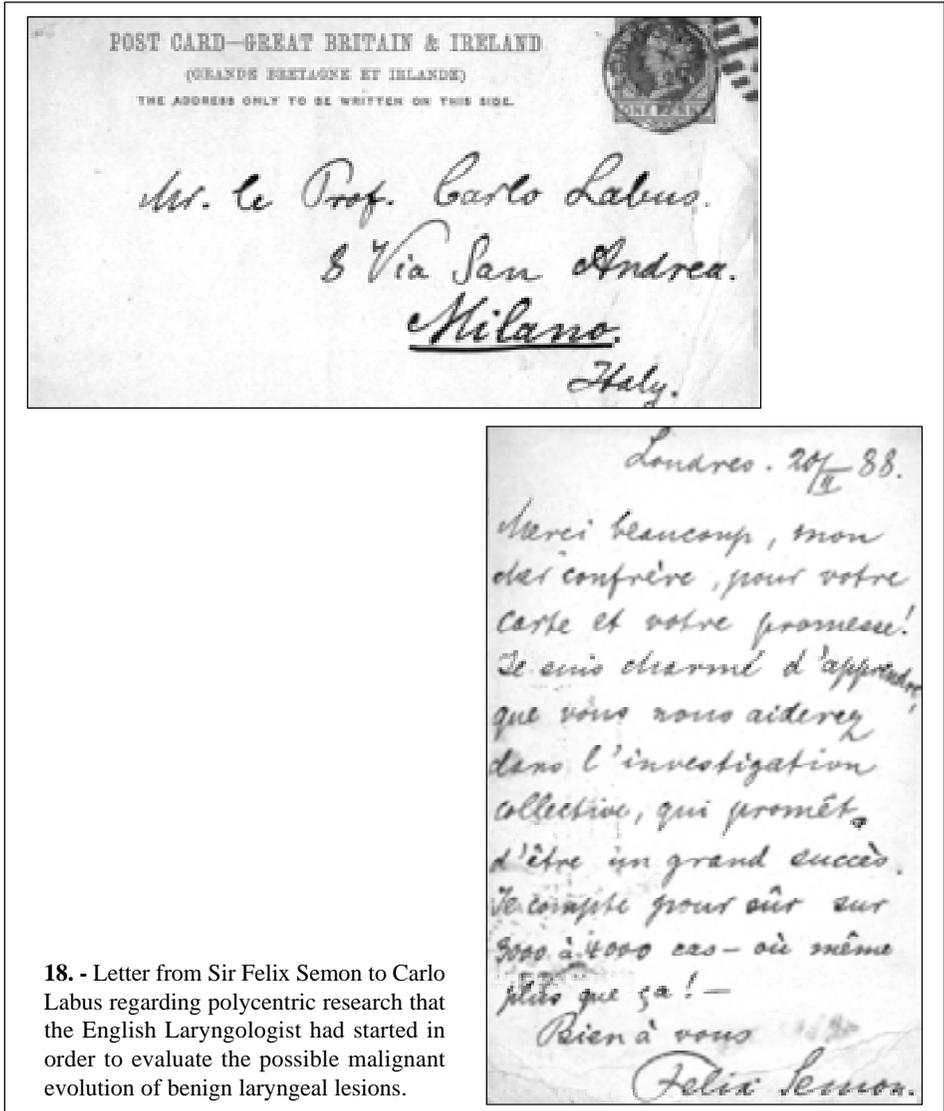
Societies of Dermatology (1885), Internal Medicine (1887), the Italian Ophthalmology Association (1890), transformed in 1924 into a Society, Society of Obstetrics (1892) and that of Paediatrics (1899).

The *Società Italiana di Laringologia, Rinologia e Otologia* (S.I.L.O.R.)

was founded in 1892.

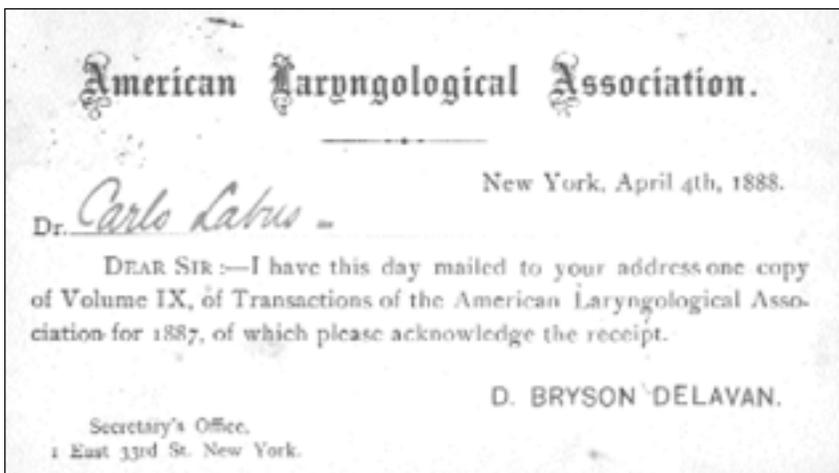
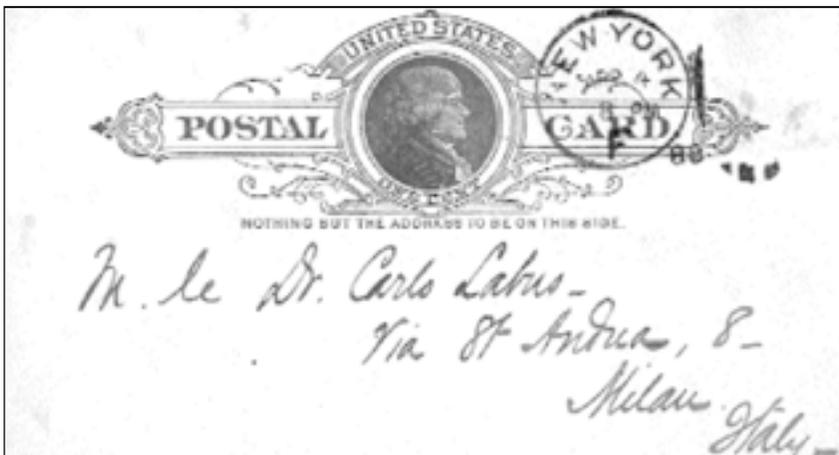
The 21 founder members were:

Carmelo Abate from Catania, *Tommaso Bobone* from S. Remo, *Faustino Brunetti* from Venice, *Antonio Damiano* from Naples, *Ignazio Dionisio* from Turin, *Francesco Egidi* from Rome, *Alfonso Fasano* from Naples, *Giuseppe Ficano* from Palermo, *Vincenzo Garzia* from Naples, *Giuseppe*



Gradenigo from Turin, *Vittorio Grazzi* from Florence, *Carlo Labus* from Milan, *Salvatore Marano* from Salerno, *Giulio Masini* from Genoa, *Ferdinando Massei* from Naples, *Pietro Masucci* from Naples, *Vittorio Nicolai* from Milan, *Camillo Poli* from Genoa, *Carlo Secchi* from Bologna, *Giuseppe Strazza* from Genoa, *Alessandro Trifiletti* from Naples.

The 1st Congress was held in Rome, 26-28th October, 1892. Grazzi, the President, in his opening speech stressed the importance of University teaching in the new discipline: *Only in three Universities (Rome, Naples*



19. - Letter from D.B. Delavan, Secretary of the American Laryngological Association, to Carlo Labus, one of the Members.

and Turin) are our studies taught by official Professors. Only in the Rome Medical School has a proper clinical teaching been set up, which is authoritatively directed by the famous Professor Emilio De Rossi. In all other national scientific centres, all that has been done and is being done, is thanks to the pure and simple initiative of the individuals, not always and wherever, encouraged by the respective Medical Faculty and Hospital Administration... The main aim of our Association, besides gathering individual work together... consists, indeed, in popularising - allow me the use of this expression - our Specialty.

What does he mean by “popularising?” He explains immediately: *The Society of Laryngology, of Otology and Rhinology, following the example of what has already been done in America, Germany, England and France, will show, by means of scientific production and the practical applications thereof, how useful these studies are, not only for those involved in health-care, but also for mankind in need of care. Studies, the importance of which, many still refuse to recognize.*



20. - 5th Congress of SILOR in Naples, April, 1900. (front row, from the left: Masucci, Grazzi,, Fasano, Masini, Massei, Gradenigo, Cozzolino).

FIRST PERIOD (1892-1913)

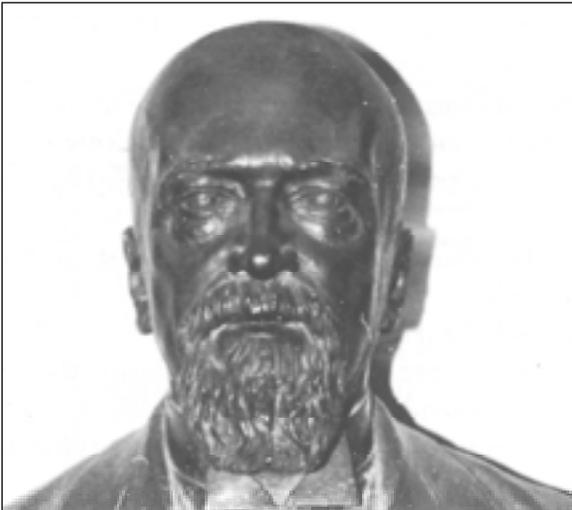
The founder members are internationally esteemed scientists. All had trained in clinics in Austria, Germany, France and England, and, with their foreign professors, had established relationships promoting cultural exchange, reciprocal appreciation and friendship. For over 20 years, Zuckerkandl and Gradenigo, as well as Semon and Labus, had constantly maintained correspondence. S.I.L.O.R. was invited to take part in the Jubilee celebrations in honour of the teaching of Gellé and Politzer. In 1910, the 50th Anniversary of the teaching of Politzer had been celebrated in Vienna, and on that occasion, the Italian President of S.I.L.O.R., Gherardo Ferreri, in honour of the Austrian Otologist, presented a message, written in Latin on behalf of Guido Baccelli, a famous clinician in Internal Medicine and ex-Minister.

In that period, the Society had several times, during the official Congresses, expressed the need to strengthen University teaching and the Ministry of Education was informed in this respect. Gradenigo, in 1908, writes: *Diseases of organs as important as ears, nose and throat are still not included in the compulsory teaching programme... continuing to con-*

sider the study of a Speciality as an optional, is the equivalent of recognizing that it is of limited value.

On the other hand, in 1907, the School of Military Health, in Florence, took the initiative to recognize the importance of the ENT discipline and includes it in its Statutes.

Society Congresses were initially held every two years, later becoming an annual event. In order to make the Society culture better known, these topics



21. - Gherardo Ferreri (1856-1929) successor to De Rossi of the Chair of Otoiatrics at the Rome University.

were included in the presentation and discussion of the Official Lectures; to stimulate research in the younger generations, scholarships are awarded. The Headquarters of the Society were, at the ORL Clinic, in Rome, which housed the official documents and publications. In 1911, the Society and the Provincial Education Office for studies in Milan, set up a collaborative relationship in order to elaborate a programme for diagnostic purposes, in Otorhinolaryngology, in the teaching schools in that area.



22. - 24th S.I.L.O.R. Congress in Catania (29th October - 1st November 1928).

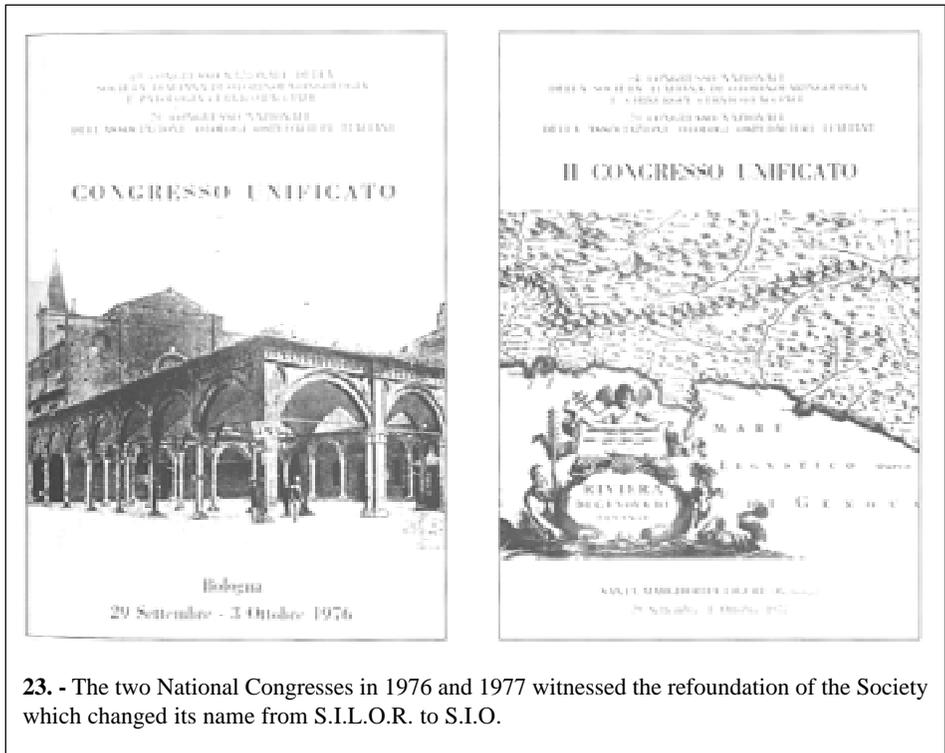
SECOND PERIOD (1920-1938)

The XVII Congress takes place in Trieste, which has just been returned to Italy, after the First World War (1915-18). From a debate during the Assembly, the need emerges not only to re-organize the administrative and financial aspects of the Society, but also to seek new members.

In this and subsequent congresses, the Society assumes the responsibility of putting pressure on the Ministry of Education in order that the ORL examination becomes a compulsory subject in the University teaching programme. Since the characteristics of the title of Specialist have not yet been defined, the Assembly at the 18th Congress held in Ravenna unanimously agreed that ... *Member of the Society was not the equivalent of being a Specialist*. This point was, in part, resolved in 1923 with the Gentile Law which set up *Scuole di Perfezionamento* for doctors with a medical degree (the equivalent of the Post-graduate Courses that we now know) and finally resolved, in 1933, by the Minister Bottai who, besides the *Scuole di Perfezionamento*, created the *Scuole di Specializzazione*.

In 1931, the Congress was held in Messina, together with the *Societas Latina di ORL* which brought many foreign colleagues to Sicily. In 1932, the Society officially takes part in the International Congress held in Madrid. At the National Congress, that same year, the President announces to the General Assembly that the Society will be taking part in a campaign against adenoidism, promoted by the *Opera Nazionale Maternità e Infanzia* (a national body involved in maternity and infant care) together with organizations in this field. The aim is to set up a Hospital ENT Unit in the major city of each Province throughout Italy.

In 1934, S.I.L.O.R. is officially invited to the XXX National Congress of the Hungarian Society, an excellent occasion to set up relationships with colleagues from that country. The Italian delegation, returning from that Meeting, stopped in Vienna, an old prestigious home to ENT culture, with a view to re-establishing the friendly relationship with their Austrian colleagues which had been interrupted by the war. The Society rejoined the *Collegium ORL Amicitiae Sacrum*, from which it had chosen to dissociate, in 1923, since Italian, unlike English, French and German, had not been recognised as one of the official languages. In the National Congress, in 1938, it was found that the number of communications from



23. - The two National Congresses in 1976 and 1977 witnessed the refoundation of the Society which changed its name from S.I.L.O.R. to S.I.O.

members was excessive, a few proposals were made but several years were to go by before any restrictive measures were adopted.

In this second period, the Society opens its doors to the so-called related disciplines, in particular, Phoniatics.

THIRD PERIOD (1946-1975)

The XXXV National Congress was held in Venice, 24-29th September 1946, after an interval of 8 years due to World War II. The war had devastated Europe, a new political situation had emerged in many countries and new ways of life, due to well-being, created by the development of industry, began to upturn the old rules while the peasant society faces an inexhaustible decline, after a history lasting thousands of years.

The industrial era develops further which is followed by that of informatics. As far as concerns health and medicine, this is the beginning of a period of discoveries and structural reforms preceding a great revolution.



24. - Enrico De Amicis (1914-1983) who played the major role in the refoundation of the Italian ORL Society.

New Specialities are born, often with the characteristics of “super-specialties”. The introduction of antibiotics, led to the disappearance of many important diseases encountered in Otorhinolaryngology which contributed to better define its surgical vocation and thus become the first Specialty to take the sophisticated route of *functional surgery*. Gradually, *functional surgery* will impose itself at an otological level, then at cervical level and, last of all, at nasal-sinus level. Step by step, Audiology, Phoniatrics, Paediatrics Otorhinolaryngology, Maxillo-facial Surgery, become autonomous, while tracheo-bronco-oesophagoscopia passes into the field of another new discipline, *Endoscopy*, and

ORL broadens its own competence to neck disorders, to great oncological surgery, surgery of the skull base and cervico-mediastinic junctions, becoming a *Head and Neck Surgery Speciality*.

S.I.L.O.R. has difficulty in following the new course in which the scientific Societies are no longer involved only from a scientific and clinical point of view, but also taking into consideration the trade union aspects, as well as maintaining relationships with the institutions. Furthermore, signs of disintegration begin to appear. The Society is faced, for the first time, with a real split when, in 1947, a group of Hospital Otorhinolaryngologists gather around Giorgio Ferreri, *Primario* at the ENT Department of the *Ospedale S. Camillo* in Rome, and set up the *Gruppo Otologi Ospedalieri Italiani (G.O.O.I.)* (Italian Group of Hospital Otologists). If, initially, the Hospital group felt part of the mother society, they immediately afterwards declared that they wanted to be autonomous and then set up their own independent social structure with its own National Congress.

In 1962, G.O.O.I. is transformed into *Associazione Otologica Ospedaliere Italiana (A.O.O.I.)* and gains greater contractual importance compared to S.I.L.O.R. Reforms in the health field, resulting from the progress made in medicine itself and the transformations that society was now facing, greatly increased the hospital structures and enlarged the medical teams in the specialistic departments. Hospital Otorhinolaryngologists feel the stronger and more numerous force of the *Servizio Sanitario Nazionale - SNN* (National Health Service) and, therefore, have difficulty in accepting that within S.I.L.O.R., the minority University component has a greater influence than that of the Hospital contingent.

The next few years are years of conflict. At this point, coming onto the scene is a great person of extraordinary intelligence and wisdom, Enrico De Amicis, ENT *Primario*, at the *Ospedale Fatebenefratelli* in Milan. De Amicis wants to put an end to the disagreements between S.I.L.O.R. and A.O.O.I. and proposes to the University contingent to re-found



25. - Michele Arslan (1904-1988) brought his brilliant professional career to a close organizing the 10th World Congress of IFOS in Venice in 1973.

the Society on an equality basis between the Hospital and University components in the Society Offices, in cultural manifestations and in other forms in which Society life is expressed. A Commission is set up with University and Hospital representatives including: Enrico De Amicis, Alfonso D'Avino (Hospital), Italo De Vincentiis (University), Domenico Filippo (University) and others who, after initial difficulties, converge on the proposals of De Amicis. The University doctors found their Society, *Associazione Universitari Otorinolaringoiatri (A.U.O.R.L.)*. De Amicis prepares the new Statutes which he reads at the Assembly of the National

Congress in Capri (27th September, 1975) and which the Assembly approves. It is decided that it will be ratified by the Notary during the Society Meeting at the next Congress to be held in Bologna at the end of September 1976. This will be the *1st Unified Congress*. Another will follow at the end of September 1977, in S. Margherita Ligure, with the characteristics of the *2nd unified Congress*. Finally, from 1978, the Congress will become a single event, with the two fundamental components united in a single body, which will take the official name of *Società di Otorinolaringoiatria e Chirurgia Cervico-Facciale (S.I.O. e Ch. C.-F.)*.

De Amicis has in mind a programme to develop the Society, for the realization of which he associates two friends: Ettore Clerici and Dino Felisati. Together they prepare detailed regulations which outline the various phases of the Society's life. The official Journal of A.O.O.I *Annali di Laringologia, Otologia e Rinologia*, which with the re-foundation has been transferred to *S.I.O. e Ch. C.-F.* is considered inadequate for the new cultural requirements. It is, therefore, decided to set up a new journal, to be known as *Acta Otorhinolaryngologica Italica*. Publishing begins in 1981, with issues appearing every two months, Editor-in-Chief Carlo Calearo.

To say that the re-foundation of the Society, on the new basis of parity, has been a success would be an understatement: since the re-foundation the Society has enjoyed years of absolute tranquillity, friendly collaboration between the two components, intense productivity both from a scientific point of view, as well as that regarding relationships with the institutions.

During this period, other events worthy of mention are:

- the constitution, in 1971, of *Sindacato Unitario Otorinolaringoiatri Italiani (S.U.O.I.)* which becomes part of the *Union Européenne des Médecins Spécialistes (U.E.M.S.)* union founded in Bruxelles, in 1958. Upon foundation of S.U.O.I., it is officially decided that a journal be launched *L'Otorinolaringoiatra* of which Giuseppe Borasi is officially nominated Editor-in-Chief.

The organization, in Venice, in 1973, of the 10th International ORL Congress, which Michele Arslan had very much wanted. Arslan was a Professor at the University of Padua, working in the ENT Clinic where he had focused attention on experimental Otoneurology, a research field in which he had been involved when he trained in Vienna as a young

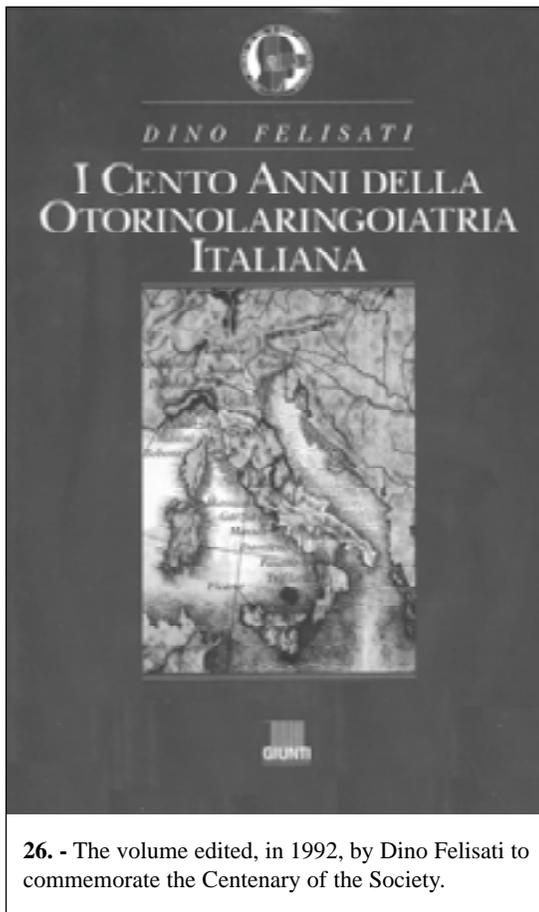
doctor. Arslan was a scientist with a vast culture, being well known and admired abroad. The Opening Ceremony of the Congress was held at the *Palazzo del Cinema* at the Lido in Venice with the Main Lecture being given by William House who presented the preliminary results of his experience on cochlear implants.

FOURTH PERIOD (1976-2005)

After the two unified congresses in Bologna (1976) and S. Margherita Ligure (1977), the Society enjoys a quiet period. In 1977, *S.I.O. e Ch. C.F.* joined the International Federation of Otorhinolaryngological Societies (I.F.O.S.) and, in 1985, also the European Federation of Otorhinolaryngological Societies (E.U.F.O.S.). In 1981, there were already 1400 members. The number was destined to increase rapidly within the next few years, a consequence of the medical plethora resulting from demagogic laws which had been come into force in the sixties and had not taken into consideration the peculiarity of medical studies, the propaedeutics to a profession which does not offer alternatives. Many years will elapse before any action is taken, to adopt the rules of a closed entry number.

In 1982, the Society is engaged in dealing with the Society of Audiology concerning the matter of *primariati* (Heads of Unit) that this discipline wants to introduce in the Hospital setting. The impending risk was the possible transformation of Audiology into Otology, as an autonomous discipline with respect to ORL, with a return to the 19th Century situation prior to unification of the Specialty. A joint Committee is held which discusses and approves a document stating that the ORL Speciality cannot be separated and the possibility of creating Audiological Centres, aimed at the prevention of hearing disorders in areas with over 5 million inhabitants. In that same year, the *Ospedale Fatebenefratelli* group in Milan decides to organise an annual meeting dealing with: *nystagmography*; proposed by Aldo Dufour. Three years later, the University group proposes holding a joint event A.O.O.I.-A.U.O.R.L.; this took the name of *Giornate Otoneurologiche* (Otoneurological Days), and, for many years, was the much awaited Spring Meeting of the Society.

In 1985, the Society becomes part of the *Federazione Italiana delle Società*



26. - The volume edited, in 1992, by Dino Felisati to commemorate the Centenary of the Society.

Mediche (F. I. S. M.). In 1986, Italo De Vincentiis who that year organised the Congress in Rome, made a gift to all participants of an anastatic copy of *De aure humana* by Antonio Maria Valsalva, the original of which is preserved in the ENT Clinic of the University of Rome.

In 1988, at the First E.U.F.O.S. Congress in Paris, the Italian Society was assigned a Round Table and a Guest Lecture. On that occasion, Giovanni Motta proposed Italy as candidate for the 2nd E.U.F.O.S. Congress in 1992, and the proposal was accepted. At the 2nd E.U.F.O.S. Congress held in Sorrento, in 1992, all the participants received a copy of *I Cento Anni della Otorinolaringoiatria Italiana*, the volume prepared

by Dino Felisati for the Society's Centenary.

Between 1992 and the present day, little more than 12 years have elapsed but the Italian Health panorama has changed completely. The Italian National Health Service is no longer able to guarantee free services, which are increasingly sophisticated and costly, to a population which is living longer and has in ever-increasing need of health-care. Thus the process of hospitals becoming a business concern, is followed by *re-engineering* and the application of criteria of *generic and specific appropriateness* in carrying out routine duties on the wards. Progress in bio-medical research has been such that the Ministry of Health has introduced *formation credits* and approved the rules governing *Continuing Medical Education*. University and Hospital doctors are faced with the same diffi-

culties, since the Hospitals in which they work are financed by the National Health Service. The doctor-patient relationship has lost its original features, the criterion of authority no longer exists and often the results of the doctor's efforts are the object of legal disputes. The Hospital Doctor has to endure difficulties which may arise when the patient contests him, society makes him out to be a criminal, accusing him not only of malpractice. Furthermore, the responsibility of the organizational, and, sometimes, also the technical choices has been transferred to the administrative bodies. The evident uneasiness is clearly shown not only by the decrease in the number of students entering the Medical University (the situation is critical also in England: it has been estimated that a further 10,000 doctors are needed to meet the requirements of the National Health Service), but also by the fact that the profession is becoming increasingly female, as revealed by statistics that show a prevalence of the female sex in the University lecture rooms. Within the *clinical governance* extraneous figures have appeared, who, aware of their financial importance have a great influence on the doctor's work and on patient's well-being. We cherish the hope that even though we live in a technologically and informatics-orientated society, we will still be able to maintain our clinical interest in the patient, as has been the case for thousands of years in a purely human world. This is what the medical profession is all about.

S.I.O. e Ch. C.-F has very carefully monitored these transformations and operated looking to the future, but, at the same time, continuing to remain firmly anchored to its traditions.

The latest event, of special importance, which has marked the pace of the Society's life over the last few years has been the preparation of the 18th *International Congress of IFOS*, which thanks to the dedication and prestige of Desiderio Passali, was assigned to be held in Rome, 25-30th June, 2005. The President of *S.I.O. e Ch. C.-F.*, Pasquale Laudadio, the Executive Committee and the Society take this opportunity to express their appreciation and heartfelt gratitude.

PRESIDENTS (1892-2005)

S.I.L.O.R.

Vittorio Grazzi, Florence (1892-1895)
Ferdinando Massei, Naples (1895-1897)
Giuseppe Gradenigo, Turin (1897-1900)
Giulio Masini, Genoa (1900-1903)
Ferdinando Massei, Naples (1903-1905)
Vittorio Grazzi, Florence (1905-1907)
Vittorio Nicolai, Milan (1907-1909)
Gherardo Ferreri, Rome (1909-1911)
Camillo Poli, Genoa (1911-1913)
Ferruccio Putelli, Venice (1913-1921)
Carlo Biaggi, Milan (1921-1923)
Giulio Masini, Genoa (1923-1925)
Giuseppe Gradenigo, Turin (1925-1926)
Federico Brunetti, Venice (1926-1928)
Salvatore Citelli, Catania (1928-1930)
Umberto Calamida, Milan (1930-1932)
Guglielmo Bilancioni, Rome (1932-1934)
Arnaldo Malan, Turin (1934-1936)
Pietro Caliceti, Bologna (1936-1938)
Luigi Umberto Torrini, Florence (1938-1940)
Federico Brunetti, Venice (1946-1949)
Giuseppe Vidau, Rome (1949-1951)
Bruno Bruzzi, Naples (1951-1953)
Giorgio Ferreri, Rome (1953-1955)
Paolo Carcò, Bologna (1955-1957)
Emilio Liveriero, Turin (1957-1959)
Ernesto Pallestrini, Genoa (1959-1961)
Franco Carnevale Ricci, Milan (1961-1963)
Michele Arslan, Padova (1963-1965)
Alfonso D'Avino, Naples (1965-1967)
Carlo Felice Porta, Parma (1967-1969)
Ettore Tavani, Lucca (1969-1970)
Vincenzo Fortunato, Catania (1970-1971)
Giuseppe Scalori, Pisa (1971-1972)
Enrico De Amicis, Milan (1972-1973)
Domenico Filipo, Rome (1973-1974)
Giuseppe Bellussi, Rome (1974-1975)
Mario Cherubino, Pavia (1975-1976)

S.I.O. e Ch. C.-F.

Giuseppe Borasi, Genoa (1976-1977)
Pier Luigi Remaggi, Modena (1977-1978)
Gianni De Vido, Treviso (1978-1979)
Ettore Bocca, Milan (1979-1980)
Ettore Clerici, Milan (1980-1981)
Leopoldo Fiori Ratti, Rome (1981-1982)
Dino Canciullo, Bologna (1982-1983)
Ettore Pirodda, Bologna (1983-1984)
Andrea Sellari Franceschini, Grosseto (1984-1985)
Italo De Vincentiis, Rome (1985-1986)
Dino Felisati, Milan (1986-1987)
Carlo Calearo, Ferrara (1987-1988)
Lucio Coppo, Rieti (1988-1989)
Paolo Menzio, Turin (1989-1990)
Gian Carlo Zaoli, Rimini (1990-1991)
Giovanni Battista Catalano, Catania (1991-1992)
Piero Miani, Udine (1992-1993)
Giovanni Motta, Naples (1993-1994)
Lorenzo Marcucci, Viterbo (1994-1995)
Antonio Ottaviani, Milan (1995-1996)
Giuliano Perfumo, Aosta (1996-1997)
Paolo Puxeddu, Cagliari (1997-1998)
Italo Serafini, Vittorio Veneto (1998-1999)
Maurizio Maurizi, Rome (1999-2000)
Giorgio Sperati, Genoa (2000-2001)
Desiderio Passali, Siena (2001-2002)
Enrico De Campora, Rome (2002-2003)
Alberto Sartoris, Turin (2003-2004)
Pasquale Laudadio, Bologna (2004-2005)

The Headquarters of the Italian ORL Society

III

THE HEADQUARTERS

The new Headquarters of the Italian ORL Society (SIO), situated in via Pigorini 6, Rome, were inaugurated on 30th November 1991, the premises having been bought with funds that the Society had destined for this purpose, over the years.

This was an event of fundamental importance, a historical moment for SIO, since, finally, a long-standing dream of our predecessors had come true. This phase brought to an end a long period of a provisional character and uncertainty.



27. - Official Standard of the Italian Society of Otorhinolaryngology-Head and Neck Surgery.

The problem had, for a few years, been brought to the attention of the Board but, despite awareness of the flurid economic conditions of the Society, the fear of embarking upon a financial operation which would not be substantially remunerative had always impeded its realisation. With time, however, any remaining doubts were put aside and thanks, above all, to the enthusiastic efforts of promotion on the part of Italo De Vincentiis, this programme met with the full and unanimous approval of the Society Members, at the General Assembly.

These new premises, having been completely restored and adapted to Society needs, were immediately prepared to permanently house the



28. - Meeting Room.

Society's Secretarial and Treasury Bureaux, both of which operating with the appropriate informatics equipment since 1986. A large room is available for periodic meetings of the Board of SIO as well as of the affiliated Societies.

The Rome Headquarters have since been equipped to house also the Library and Historical Museum.

The SIO has always had as a "top priority" duty, the promotion and diffusion of studies in the field of Otorhinolaryngology and the protection of the professional interests of its Members. A duty that has been carried out with determination and efficacy, in over one century of the Society's existence, in order to guarantee as far as possible the cultural updating of the Members. In the realisation of this objective, a considerable contribution has come from the Lectures, Round Tables and Main Lectures presented each year during the National Congress of the Society, the scientific projects of the affiliated Societies, as well as of each member of the Society and the publications in the journal *Acta Otorhinolaryngologica Italica* – official organ of the Society.

Cultural updating of specialists, which was once left to one's own initia-

tive, is now compulsory by law. SIO has, therefore, in respect of these new regulations, taken the necessary steps by appointing a Committee for Continuing Medical Education (*Comitato per l'Educazione Medica Continua*) whose duty it is to ensure that the cultural manifestations of SIO and the Members have the qualitative requisites to be accredited according to the present law.



29. - Inauguration of the new Headquarters in Via Pigorini, Rome.

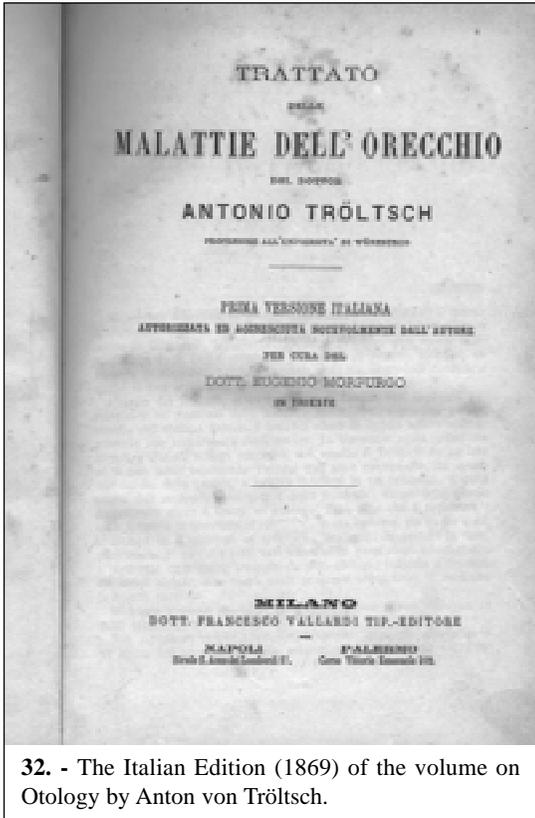
From the left: First row - Felisati, Calearo, Pezzarossa; Second row - Ottaviani, Miani, Perfumo, Zaoli, Catalano, Di Fede, Serra, Celestino, Laurini; Third row - De Campora, Arch. Ruspoli, Sperati, Coppo, Piemonte. (*Photo by courtesy of Giovanni Ralli*)

It is also the duty of this Committee to propose study and research programmes aimed at the continuing formation of the specialist, such as, for example, Up-dating Courses, Theoretical and Practical Courses, Congresses, Publications etc. to be prepared strictly adhering to the needs of the Members.

The possibility of holding Theoretical and Practical Courses in our own Headquarters is currently under evaluation with a view to reducing to a minimum the expenses incurred by members wishing to attend updating courses.

THE LIBRARY

In November 1991, at the Inauguration of the new Headquarters, the Board assigned Domenico Celestino the task of organizing the Library destined to accommodate and preserve books, journals and documents which would witness the development of the Society.



32. - The Italian Edition (1869) of the volume on Otology by Anton von Trölsch.

Today, the Library, thanks also to the generous donations of numerous Members is endowed with hundreds of volumes of specialistic interest, some of which, dating back to the 18th and 19th Centuries, are of great historical interest. These include the works of *Maestri* such as Haller, Cotugno, De Rossi, Mackenzie, Troeltsch, Nicolai, Brunings, Gradenigo, Grazi, etc., who have played a determinant role in the development of our discipline. The Library also houses the Proceedings of all the National Congresses of the Society, the Proceedings of the International Specialistic Congresses as well as the complete series of *Acta Otorhinolaryn-*

gologica Italica, the official journal of the Society, since 1981, and other important national periodicals of historical importance such as *Archivi Italiani di Laringologia*, founded by Massei in 1881, *Bollettino delle Malattie dell'Orecchio, della Gola e del Naso*, founded by Grazi in 1883, *Archivio Italiano di Otologia, Rinologia e Laryngology*, founded by De Rossi and Gradenigo in 1893 and *Annali di Laringologia, Otologia, Rinologia e Faringologia*, founded by Masini in 1901.

THE MUSEUM



33. - Showcase in the SIO Museum in Rome.

In 1998, the Board voted to set up a Historical Museum within the Headquarters to house the collection of objects and instruments of the past, witnessing the evolution of Otorino-Laryngology. The task of setting up and organizing the Museum was assigned to Giorgio Sperati.

Within a few years, the Museum was considerably enriched thanks, above all, to the generous donations, by many colleagues, of objects from various periods.

In coincidence with the 90th National Congress held in Rome, in May 2003, Dino Felisati and Giorgio Sperati set up an exhibition, at the Congress venue, of antique instruments and volumes of particular significance, belonging to the Society collections, which were arranged according to the specific topics.



34. - Showcase in the SIO Museum in Rome.

Following the success of this exhibition, the two organizers decided to display the objects in the Museum, according to various themes. Whilst awaiting for all the objects to be set out according to these criteria the

antique instruments are currently displayed according to the following topics:

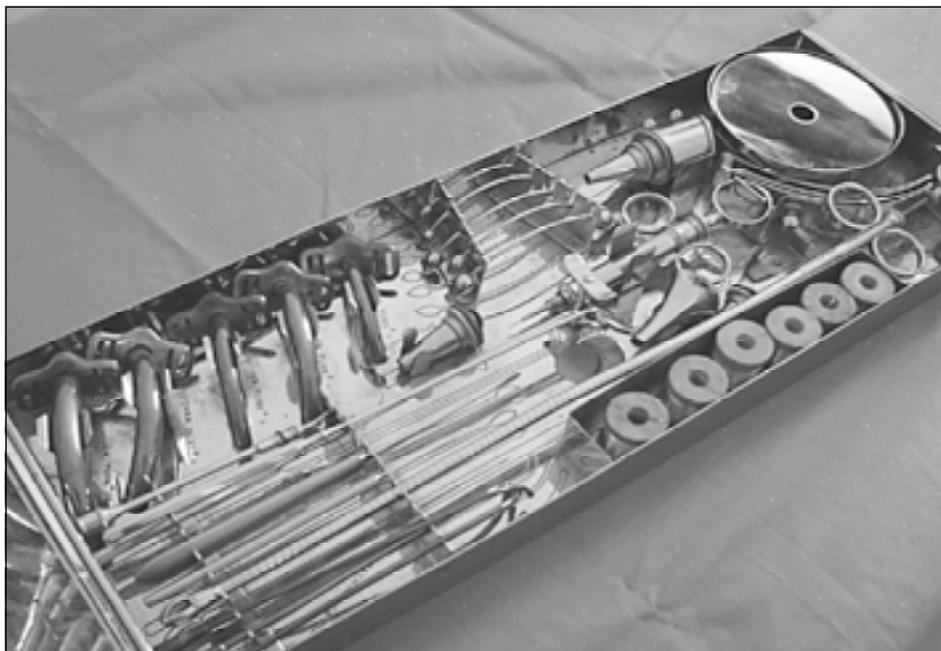
- *Evaluation of hearing function in the pre-audiological era*
- *The Golden Age of tonsillectomy*
- *Adenoidectomy in the early 20th Century*
- *The origins of Laryngology*
- *Evolution of mastoidectomy.*
- *The first broncho-oesophagoscopies*
- *A forgotten plague: diphtheria*
- *Outpatient Units one hundred years ago.*

For each of the cabinets containing volumes and instruments related to these topics, cards have been prepared with a short historical note, providing both general and specific information, to better understand the significance of the objects on display.

The contents of these cards will be found in the following pages.



35. - Brunton's otoscope (SIO Museum - Rome)



36. - ORL instruments used by U.S. Army doctors during First World War. (*SIO Museum - Rome*).



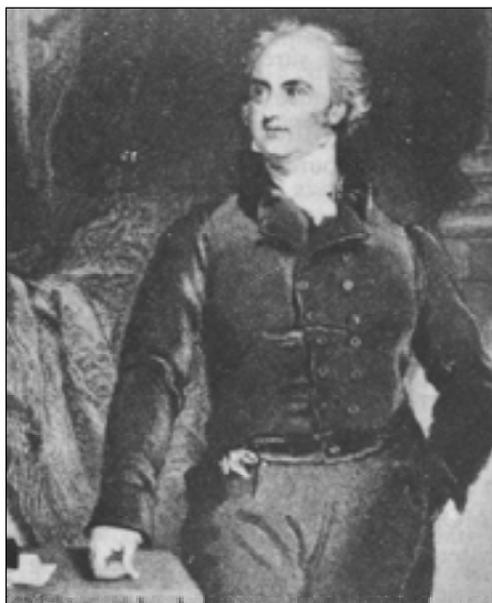
37. - Hélot photophore (*SIO Museum - Rome*).

Themes on Exhibition in the Museum

IV

EVALUATION OF HEARING FUNCTION IN THE PRE-AUDIOLOGICAL ERA

Hearing defects in the pre-audiological era were evaluated by estimating the subject's ability to hear, at various distances and of varying intensity, a human voice, or other sounds, of predetermined frequency, emitted by



38. - Sir Astley Paston Cooper (1768-1841) one of the first to promote paracentesis of the tympanum in tube obstructions (from Stevenson and Guthrie).

specific mechanical devices. It was an empirical and inaccurate evaluation, from a quantitative point of view, but, nonetheless, offered the possibility to perform sufficiently reliable diagnostic investigations throughout all the 19th Century and the beginning of the 20th. The first tests were carried out with either a speaking or a whispering voice and with the use of a watch. Already in 1801, Sir Astley Cooper (1768-1841), used a pocket watch, held at various distances from the ear being examined, to establish the entity of hearing loss and to decide whether or not myringotomy should be performed. The pocket watch test was not standardized,



39. - Albrecht von Haller (1708-1777), the greatest physiologist of his time. His resonance theory was similar to that propounded by Helmholtz, more than 100 years later.

but each physician used his own and compared the hearing level of the patient with his own hearing. Various attempts were made to propose particular instruments such as Polansky's watch (1842) with which the Viennese physiologist compared aerial and osseous perception, preceding Rinne's test by 13 years, or the clocks of Schmalz (1846) or Rau (1856) which, moreover, were not very successful. Tests, using the human voice gradually improved with the improvement in studies on the various components of words carried out by Pflingsten (1804), Itard (1821), but above all by Donders (1857) and by Helmholtz (1863). These studies led Oskar Wolf, from Frankfurt, not only to propose a detailed classification of words,

in 1871, which was based on their frequency, but also to establish threshold values, which offered the use, for clinical purposes, of a sufficiently reliable, but above all standardized, method, with which to carry out statistical comparisons. The acoumetric examination used devices which mechanically emitted sounds, at a given frequency. The most important of these instruments were the tuning forks which, for over a century, were those most used by otologists throughout the world. The tuning fork was invented in 1711 by the English musician, John Shore (1662-1752), to obtain sounds with a constant high pitched tone which were easily reproducible. Its use, for clinical purposes, came about much later. The first to use it, in 1834, were the Weber brothers, Ernst (1795-1878) and Eduard (1806-1887), physiologists from Leipzig, demonstrating, with a low frequency tuning fork placed on the top of the head, the phenomenon of lat-

otologist, promoted the use of the Weber test for clinical purposes and in 1845 began to measure hearing acuteness with a tuning fork. Also Eduard Schmalz (1801-1871), from Dresden, a student of Weber, was responsible, between 1845 and 1850, for promoting the use, in otology, of these instruments which very soon became widespread.

Other tests, besides that of Weber, were developed to determine whether the site of the hearing disorder was at transmission or perception level. To this end, Friedrich Heinrich Rinne (1819-1868), from Göttingen, set up a test, in 1855, focusing on the comparison between air and bone perception, whilst Dagobert Schwabach (1846-1920), a student of Troeltsch and Wurzburg and of Lucae in Berlin, proposed, in 1885, a test based upon the duration of tuning fork perception placed on the mastoid. From the end of the 19th Century onwards, the tuning fork became an irreplaceable diagnostic tool used worldwide.

In 1899, Giuseppe Gradenigo (1859-1926), in Turin, presented an interesting device to vary the oscillations of the tuning fork, composed of two graduated metal bands inserted in the tips of the prongs of the instrument: the invention was an immediate success.

At the beginning of the 20th Century, various research workers proposed a series of tuning forks, each differing from the other. Those most used were the series proposed by Bezold-Edelmann which comprised 10 elements calibrated on a frequency field ranging between 150 and 8700 Hz, and the series of Hartmann and Gradenigo, composed of 7 elements with a frequency ranging from 64 to 4096 Hz.

As far as concerns hearing tests in the 19th Century, special instruments



40. - Ernst Weber, Professor of Anatomy and Physiology in Leipzig, in 1834, with his brother Eduard, demonstrated the phenomenon of lateralization of sound through the bone. This phenomenon had already been described by Wheatstone in 1827 (from *Feldmann*).

were used, known as acoumeters, which mechanically produced sounds of calibrated intensity.

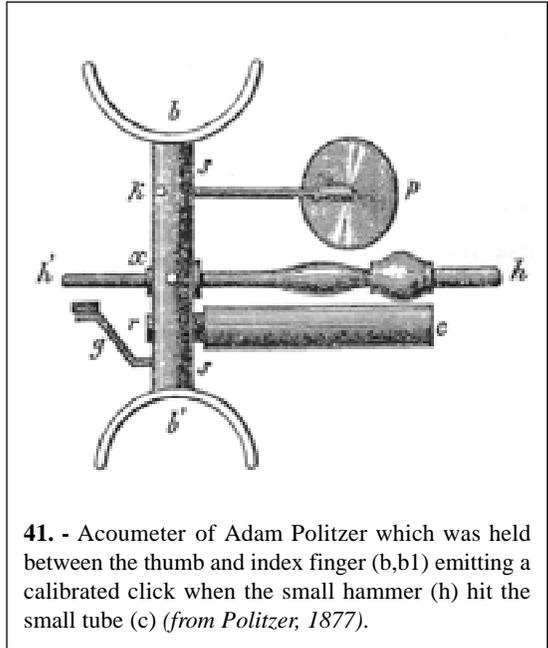
The first apparatus of this type was developed by Christian Wolke (1741-1825), in 1802, and consisted of a small oak hammer which, from a variable height and angle, hit a block of pinewood. The minimum elevation necessary for the sound produced to be heard was thus measured.

Another similar acoumeter was produced by Jean Marie Itard (1775-1838) in 1821.

This device comprised a pen-

dulum with a swinging staff which produced a sound when it hit a copper ring and, here again, the minimum change in the angle of the pendulum

required for the sound to be heard was measured. Albeit, since these pieces of equipment were cumbersome and not very suitable for routine diagnostic use, they were soon abandoned. Adam Politzer (1836-1920) was responsible for the development, in 1877, of a small portable instrument which since it was extremely practical was highly successful for over 40 years. It was held between the thumb and index finger of one hand whilst the small hammer hit the small tube which produced a calibrated click.



41. - Acoumeter of Adam Politzer which was held between the thumb and index finger (b,b1) emitting a calibrated click when the small hammer (h) hit the small tube (c) (from Politzer, 1877).



42. - Galton's whistle was used to evaluate the perception of acute frequencies (SIO Museum - Rome).

To evaluate severe hearing defects, in the high frequency fields, instruments emitting sounds higher than 4000 Hz were used, such as the Koenig sticks and especially the whistle of Galton and monochord of Struycken.

Sir Francis Galton (1822-1920), Charles Darwin's cousin, had studied medicine but he dedicated his life to anthropology. In 1883, he had written an essay, *Inquiries into Human Faculty*, an area in which he had thrown further light on the studies commenced, in 1820, by William Wollaston concerning the limits of the tone field.

In order to establish the upper limits of detectable frequencies, both in man and animals, he had a whistle made that would emit high frequency sounds. This instrument, on account of the simple design and small dimensions, immediately became part of the diagnostic armamentarium of otologists, which later included the monochord, used for the same purpose.

This device was developed, in 1910, by the Dutch Otologist, from Breda, H.J.L. Struycken and consisted, primarily, in a steel wire, with variable tension, able to produce a sound of approximately 5000 Hz.

Following the modifications in the instrument, in 1911, by Schaeffer, physiologist from the Charitè Hospital in Berlin, it was possible to reach even 25000 Hz.

During the Otology Congress, in 1904, Politzer, Gradenigo and Deleaux classified the acoumetric tests including them in the so-called *Acoustic Schema* which should have led to uniform diagnostic criteria related to hypoacusia. This was based primarily on the vocal tests according to Wolf, on attempts to establish the hearing threshold with the clock, the acoumeter of Politzer and the tuning fork and on the tests of Weber, Rinne and Schwabach which remained in use during the early decades of the 20th Century and until the introduction of audiometrics.

THE GOLDEN AGE OF TONSILLECTOMY

Hippocrates (5th Century BC) defined tonsils as “antiades” on account of the symmetrical oro-pharyngeal site and had already described this pathological condition, but had limited surgical treatment only to incision of abscesses. For information concerning tonsillectomy, we must refer back to Celsus (First Century) who in the VII book of the *De Medicina* described removal of the tearing away of the pedunculated tonsils with the fingers (*digito circumradere et evellere*) and for other cases, removal with bistoury following anchorage with a hook (*hamulo excipere et scalpello excidere*).

Bleeding was treated by means of rinsing with astringent solutions and, in the more severe cases, with caustic agents or with local cauterization. Intra- and post-operative haemorrhage, at times even fatal, were typical complications that for centuries conditioned tonsillectomy. Aetius of Amida (502-575) had, for this reason advised only partial removal of the tonsils and some Arab authors, such as Alì Abbas (10th Century) and Albucasis (10-11th Century), despite



43. - Aulus Cornelius Celsus (First Century AD) in the 7th Tome of “*De Medicina*” described, for what is believed to be the very first time, tonsillectomy.

complete excision, cauterized the wound. Several famous leaders in Renaissance surgery, such as Ambroise Paré (1510-1590) and Girolamo Fabrizi di Acquapendente (1533-1619) were, on the other hand, completely against tonsillectomy which, in their opinion, gave rise to greater risks than usefulness.

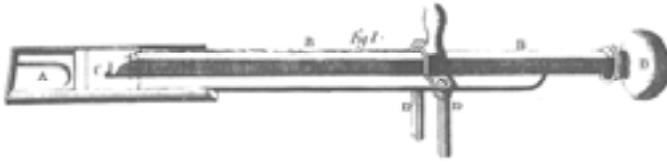


44. - Ambroise Paré, the famous Court Physician in France had always been against tonsillectomy which he considered a useless and risky operation.

Nonetheless, recurrence of inflammatory suppurative episodes of the tonsils or peri-tonsil areas required this treatment. To reduce the possible risk of bleeding, use was made of the snare which strangled the vessels of the peduncle which enabled closure to be carried out more rapidly than when a clean cut was made with the bistoury. The first to use ligation was a student of Paré, Jacques Guillemau (1550-1613), followed, within a short while, by many others. In the 18th Century the procedure of ligation of the peduncle was improved to perfection primarily by William Cheselden (1688 -1752) who used a proper suture with the needle and thread passing first through one half

of the peduncle then the other. The Italian, Pietro Moscati (1739-1824), further improved this technique in 1759 employing four stitches rather than two. However, these steps, whilst guaranteeing better prevention of haemorrhage, gave rise, on the other hand, to other problems caused by the cumbersome method and the habit of some to leave the tonsil to drop spontaneously due to necrosis. Thus the technique was used by very few whilst the majority remained faithful to dissection with bistoury and scissors and to cauterization of the wound.

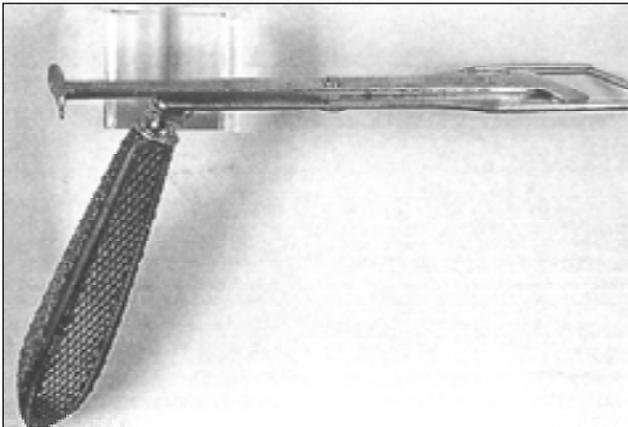
In the 19th Century, an important revolution took place with the advent of guillotine tonsillotomy. This type of instrument, comprising two overlapping blades which ran one on the other and with a round or oval opening



45. - The *kiotome*, an instrument developed to amputate the uvula, from which all tonsillotomes and guillotines were derived (from *L. Heister Chirurgie, Nuremberg 1763*).

at the tip, was derived from an identical instrument, the so-called *kiotome*, which in previous centuries had been used to amputate uvolas that were too long. It was to be a doctor in Philadelphia, with a degree from Edinburgh, Philip Syng Physick (1768-1837), who, in 1828, presented a tonsillotome which he had developed by modifying the kiotome of the Scotsman Benjamin Bell (1749-1806). The tonsil which became imprisoned in the double ring was severed from the front to the back by the sliding blade, a rapid and relatively painful procedure. In 1832, William B. Fahnestock again modified the instrument inserting a two-pronged fork in order to block the tonsil and inverted the sectioning movement which thus became from the back to the front and Albert Mathieu (1855-1917), the well-known Parisian maker of surgical equipment, further improved the tonsillotome to the extent that it was used throughout Europe.

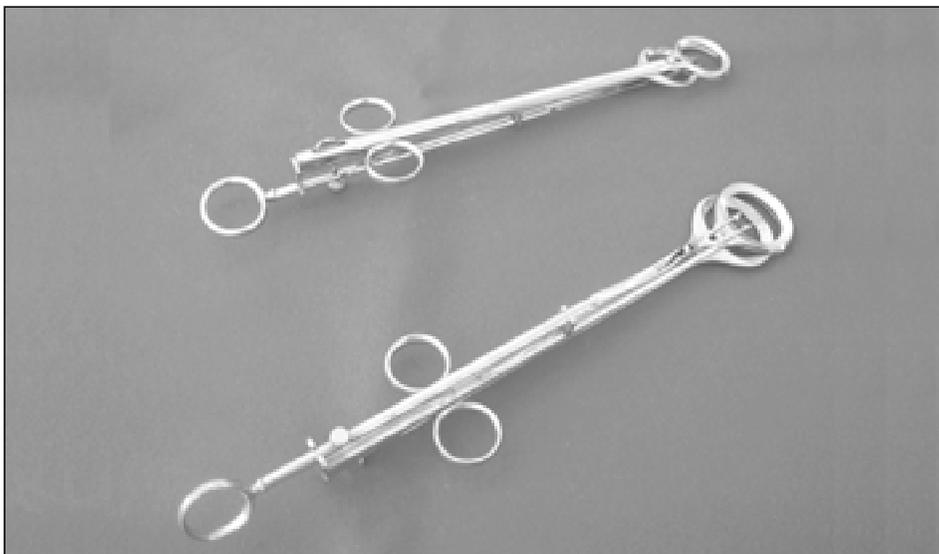
Also Morell Mackenzie (1837-1892), with his indisputable authority in Great Britain, used the tonsil guillotine and, in 1882, produced a simple



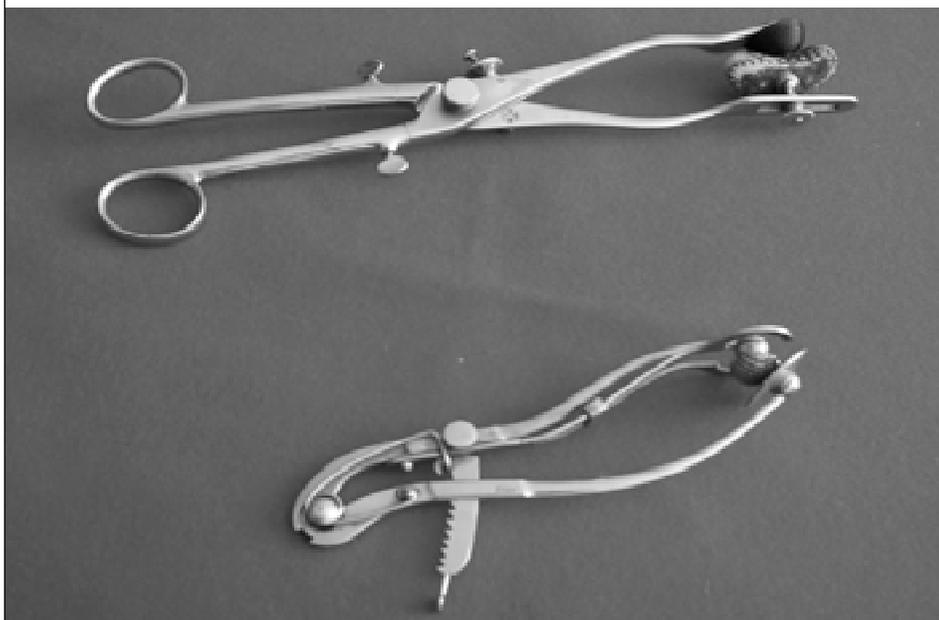
46. - The tonsillotome realized, in 1828, by Philip Syng Physick (from *Feldmann*).

tonsillotome and a second one based upon that of Physick.

A further step forward, in this category of instruments, was made at the beginning of the 20th Century by a surgeon from Chicago, William Ballenger, who, in 1909, developed a new type of guillotine. The following year, Greenfield



47. - Tonsillotomes developed by Fahnestock, in 1832, and later modified by Velpeau and by Mathieu (*SIO Museum - Rome*).



48. - The tonsil compressors devised by Mickulicz (above) and by Marshik (1914) used to arrest haemorrhage (*SIO Museum - Rome*).

Sluder from St. Louis, added a strong universal grasp which made it possible to hold the instrument in one hand. The instrument produced by Sluder-Ballenger associated the principle of the guillotine with that of tearing using a blunt sliding blade and digital disengagement, which immediately met with the approval of specialists throughout the world, a favour that remained unchallenged until recently. Use of this technique was destined primarily for use in paediatric patients, whilst in adults, dissection with bistoury, scissors and snare with a Vacher-like metallic loop remained the procedure of choice

Other specialists such as the German Moritz Schmidt, Botey the Spaniard and the Pole Szendiak used, in the last decade of the 19th Century, dissection with a galvanic loop, a technique proposed, in 1854, by Albrecht Middeldorpf from Breslau.

A fundamental contribution to tonsillectomy was made with the introduction not only of general anaesthesia with inhaling of ethyl chloride, a gas offering a very rapid induction effect and, likewise, rapid elimination, but also of local anaesthesia by means of infiltration. These rather empirical methods which allowed only partial and temporary analgesia remained in use for the first half of the 20th Century. After the Sixties, use of general anaesthesia with gas and oro-tracheal or rhino-tracheal intubation, relieved surgery from the need to complete the operation too rapidly.

ADENOIDECTOMY IN THE EARLY 20th CENTURY

The clinical importance of the adenoids was demonstrated by Wilhelm Meyer (1824-1895), the father of Danish Otology. He was the first in history to perform adenoidectomy, thus paving the way that was soon to be followed by otorhinolaryngologists all over the world. Mayer was a general physician who had dedicated his time to the study of ear disorders and had opened a private clinic in Copenhagen specializing in these diseases. On 22nd October, 1867, he examined a young peasant who, since



49. - Wilhelm Meyer carried out the first known adenoidectomy in history, in 1867, in Copenhagen.

childhood, had complained of fairly severe hypoacusia and a nasal obstruction that could not, however, be accounted for by rhinological disorders.

Upon digital exploration of the rhinopharynx, which, in those days, was not a common procedure, Meyer noticed that the area was completely filled with tissue of a soft consistency, with an irregular surface which appeared to originate from the superior and lateral walls. He, therefore, had a slim instrument made, with a cutting ring-like tip which he used in the attempt to remove the neoformation. The adenotome, introduced through the nasal cavities

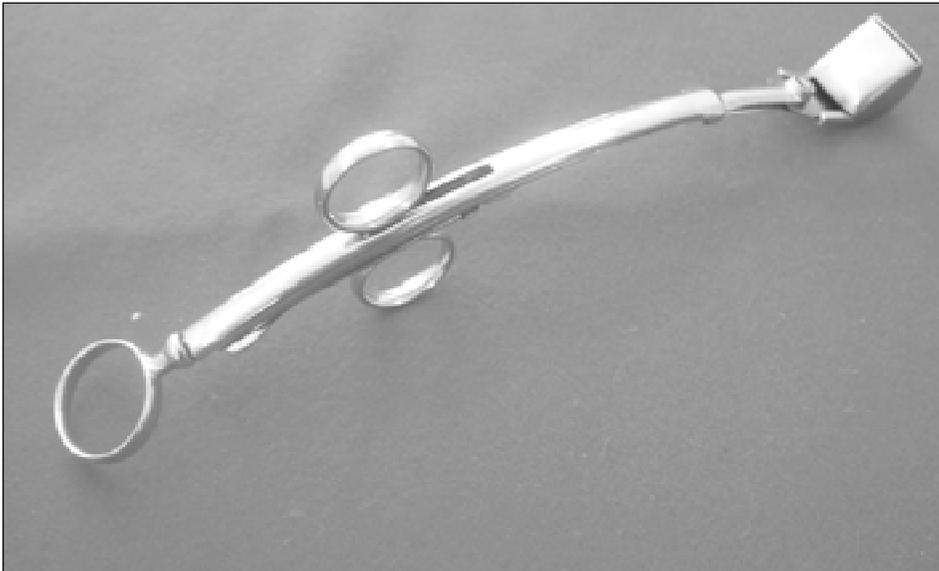
enabled him, with repeated movements to free the rhinopharyngeal obstruction while the abundant bleeding was stopped by rinsing with cold water and the use of caustic agents. The brilliant results obtained, with a return to normal of breathing and improvement in hearing, led Meyer to systematically proceed with digital exploration of the rhinopharynx in the attempt to find other analogous cases and, to his surprise, he realised that the presence of that hypertrophic tissue, which he defined as *adenoid vegetations*, was not in the least a rare occurrence and within a few months he had already found as many as 48 cases.

Meyer's publications led to considerable enthusiasm amongst the European Otologists and great interest was focused on the problem of adenoid disorders not only on account of the repercussions on hearing and respiratory function but also upon psycho-physical development in the young. Meyer himself carried out numerous statistical studies, in this respect, on Danish, Swedish, German, Dutch and Italian school-age populations. The influence of the adenoids on the psycho-physical development of adolescents was soon considered unquestionable (Guye from Amsterdam coined the term *Aprosexia*, especially as far as concerned the changes in the



50. - Ethyl chloride, inhaled by means of the mask proposed by Esmarch, was very much used in adenoidectomies since it induced a rapid, even if only brief, anaesthetic effect.

(SIO Museum - Rome)



51. - Adenotome of La Force (*SIO Museum - Rome*).

development and configuration of the upper maxillary bone, studied in depth by Michel in 1876, by Jarvis in 1885, by Delavan, in 1887, and by Gleitsmann, in 1897).

After the 1870's, throughout Europe of the 19th Century, a crusade was launched against hyperplasia of the rhinopharyngeal lymphatic tissue, histologically described by Lusschka, in 1868, and adenoidectomies multiplied enormously and, consequently, also the surgical techniques and instruments. Via the nasal approach, Meyer's curette was being used, the snare of Chiari, that of Zaufal and the galvanocautery, but this type of approach was of little success and the oral route was preferred using Motais' *surgical nail* (a thimble-like cutting device fixed to the tip of the index finger), the pincers of Loewenberg and, above all, the curved curettes which were the most used instrument. Of these, it is worthwhile mentioning the adenotome designed by Moritz-Schmidt, the laterally curved model of Hartmann, as well as that of Gottstein.

To avoid fragments of tissue from slipping down during the operation, the so-called basket adenotomes were proposed (Gottstein, La Force) with which the part removed was trapped by the instrument.

For several decades, adenoidectomy was the operation most carried out in

the otorhinolaryngology setting. Quite often, however, incorrect indications led to this practice becoming overtreatment. Not everyone agreed with the exaggerated use of these operations and, already in 1877, the Viennese Clinician Leopold Schroetter stigmatized how excessive this wild surgical enthusiasm had become towards a disorder, the importance of which had, in his opinion, been overrated.

Despite adverse opinions, which were rare, adenoidectomies continued to be practised, on a large scale, for a long time, offering the specialists, moreover, substantial economic advantages. In this regard, a phrase full of significance was written by Jonathan Wright, in 1914, in his *History of Laryngology and Rhinology* referring to Wilhelm Meyer and his discovery: *...he has furnished a subsequent generation of rhinologists with their most lucrative source of income.*

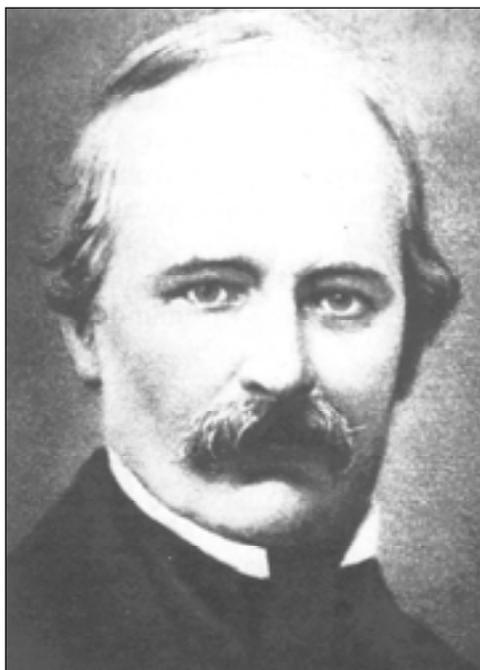
ORIGINS OF LARYNGOLOGY

Laryngology, as a medical discipline, originated in Vienna, between 1857 and 1859, thanks to an Austrian neurologist, Ludwig Türck, and a Czechoslovak physiologist, Johann Czermak, who introduced, to clinical studies, the most useful and efficacious means with which to carry out indirect laryngoscopies: the laryngeal mirror invented, three years earlier, by the Maestro of song, Manuel Garcia.

Endoscopy, the possibility to observe *in vivo* the characteristics of the hidden organ, was the indispensable condition with which to develop new specialities such as rhinology, urology and also laryngology.

Throughout the 19th Century, various attempts had been made to realize polyvalent endoscopes, from the *lichtleiter* of Bozzini (1806) to the glottiscope of Babington (1829), from the polyscope of Avery (1844) to that of Warden (1844), but none of these had led to satisfactory results for laryngoscopy.

Even the attempts of Cagniard De La Tour (1825), and of Liston



52. - Ludwig Türck, in 1857, was the first to adopt the indirect laryngoscopy method invented by Manuel Garcia (*from Reuter*).

(1837), with the dentist's mirror, led to negative results, since they allowed visualization of only part of the epiglottis.

The invention of Garcia, in 1854, was, instead, of fundamental importance, even if, at the beginning, the possible clinical applications were not completely understood. It was Ludwig Türck (1810-1868), from the VI Medical Division of the Allgemeinen Krankenhaus in Vienna, who, in the Spring of 1857, began to experiment the use of the laryngeal mirror in neurological patients employing sunlight as the source of light. Once



53. - Johann Czermak who was responsible for having promoted the technique of laryngoscopy throughout Europe.

Winter came, with fewer days of sunshine, the clinical investigations were temporarily abandoned. Taking advantage of this occasion, Johann Nepomuk Czermak (1828-1873), who, in Vienna, worked with Brücke and Ludwig the promoters of *Neuephysiologie*, asked to borrow the instrument for experiments of a physiological nature.

He immediately realized the great possibilities available with the application of the laryngeal mirror and became an enthusiastic promoter. He immediately made use of artificial light and already in March 1858 published, in the *Wiener Medizinische Wöchenschrift*, a report on the technical aspects of

this instrument. In 1859, he continued his propaganda work visiting the most important European Clinicians, arousing, everywhere, the enthusiasm of many colleagues, such as, Mackenzie, Yearsley, Lewin, Tobold, Moritz-Schmidt, Gerhardt, Voltolini, Fauvel, Moura-Bourillou, and others, who launched laryngoscopy in their countries.

The success of Czermak provoked, as might be expected, the resentment of the very reserved Türck, who felt that he had been defrauded of the priority in this field. Thus a dispute began between the two that lasted for

many years and which was remembered with the name of *Türckenkrieg* (the Turkish war or the Türck war) to which each of them contributed, making, from time to time, important technical innovations as far as concerns both the examination and the instruments. Thus it was not a useless dispute, only for the sake of argument, but, involving general interest, played a definite role in the success of laryngology.

There can be no doubt, on the one hand, that the merit of having commenced experiments belonged to Türck, while, on the other, the role of Czermak was equally important for having promoted the method throughout Europe, and both gained recognition, in this respect, to the extent that during the First International Congress of Laryngo-Rhinology held in Vienna, in 1908, a commemorative medallion was prepared, dedicated to both, as promoters of laryngology.



54. - Carl Stoerk, with Schrötter and Schnitzler, continued the work of Türck and Czermak, promoting the prestigious School of Laryngology in Vienna.

In 1860, Czermak transferred to Pest, where he had been assigned the Chair of Physiology, while Türck remained at the General Hospital of Vienna with the title of Lecturer of Laryngology from 1861 and Associate Professor of this subject from 1864. Upon his death, from typhoid fever, in 1868, his work was continued by his students Carl Stoerk (1832-1899) and Leopold Schrötter von Kristelli (1837-1908).

The latter remained to direct the Unit of the General Hospital where, in 1870, the first Laryngologic Clinic was officially inaugurated with 16 beds, while Stoerk became the Director of another important institution, the *Ambulatorium für Laryngologie*. In 1872, Vienna had a third centre:

the Laryngological Service of the *Allgemeinen Poliklinik*, Head of which another illustrious person, Johann Schnitzler (1835-1893).

Vienna was, therefore, unquestionably the world centre of this new discipline and students rushed there, from all over the world, not only to learn, but also for advanced training, as for example, the American Elsberg, the Russian Rauchfuss, the Spaniard Ariza, the Italians Labus, Gentile and

Massei who were then to become the first and most important experts, in this field, in their own countries.

Schnitzler reported that from 1872 to 1876, for his courses, he had had, in his Institute, about 500 students of whom 118 from the United States, 10 from Asia and 2 from Australia thus demonstrating the enormous and universal interest in this new discipline in those pioneering years.

On the other hand, it should not be forgotten that Vienna, throughout the second half of the 19th Century was the World capital not only of the new specialities but of Medicine as a whole.

As already pointed out, the evolution of Laryng-

ology depended mainly upon the progress of laryngoscopy and perfection of the technical aspects was one of the primary aims of the specialists. The main problem was that of finding suitable sources of light as well as



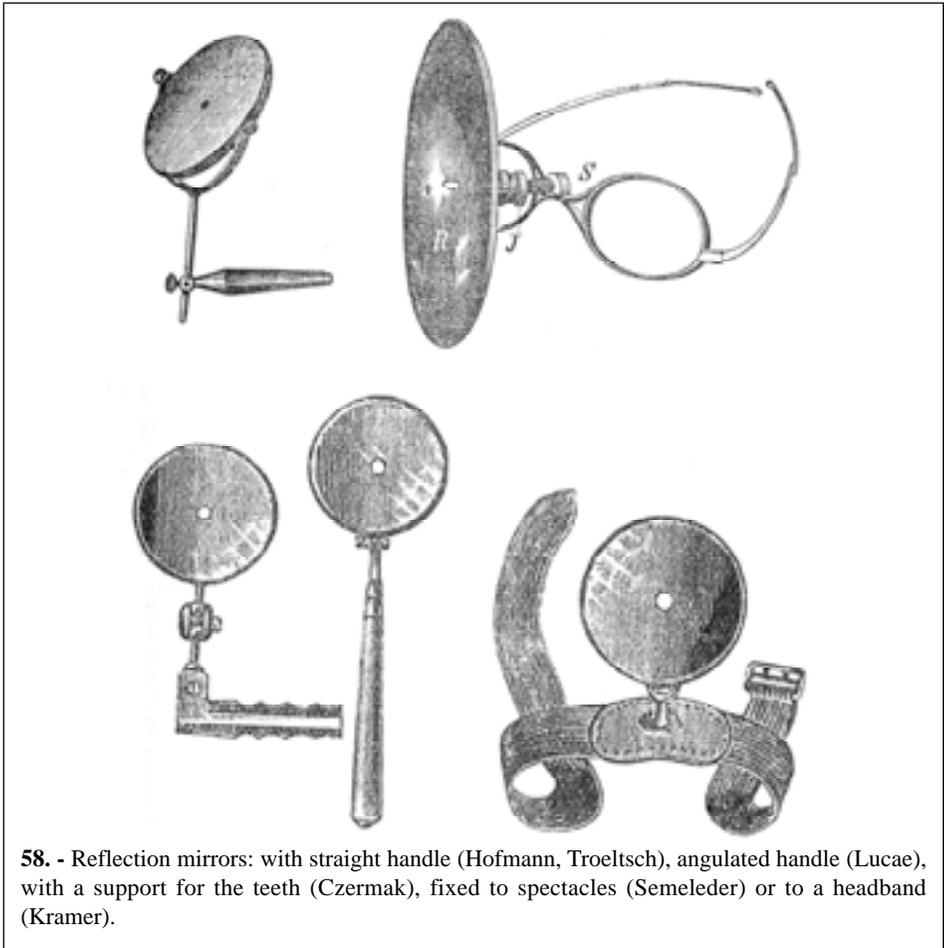


56. - The "cobbler's lens" comprised a glass jug full of water which was used to concentrate light rays (from *Stoerk*).

the means by which to converge the light rays on the mirror. For over 20 years, all kinds of proposals were continuously put forward by the experts in this specialty. As sources of light, almost all types of inflammable means available, at that time, were used: passing from candles to petroleum or paraffin lamps, from the Argand gas lamps to those of Auer which besides burning gas, burned a mixture of lanthanum and zinc oxide, from the Drummond burners providing oxy-hydrogen light to those using acetylene or magnesium. The inflammable substance most used was, nonetheless, gas which was by then available, in all homes. After 1880, the advent of the small electric light bulbs resulted in considerable progress since it



57. - The portable laryngoscope invented by Krishaber (*SIO Museum - Rome*).



enabled the use of direct (Hélot, Trouvé) or reflex (Roth, Clar) light photophores and, furthermore, paved the way for the affirmation of bronchoesophagoscopy (Killian, Brunings) and of direct laryngoscopy (Kirstein).

To concentrate the light rays on the laryngeal mirror, convex lens or concave mirrors were used. From the simple lens of the cobbler, a glass jug full of water, to the appliances with multiple lens of Fauvel or of Moura-Bourillou to the portable laryngoscope of Krishaber, the converging lens, albeit, had short-lived success and, with time, reflex mirrors were preferred.

Some of these were held by fixed (Stoerk, Lleiter) or folding supports

(Türck), but quite soon preference was shown for those with a less accentuated concavity and bored through the centre in order to allow both the visible and the luminous rays. These had a handle which could be held with one hand (Garcia) or between the teeth (Czermak), or could be fixed to the head by means of spectacle frames (Semeleder) or a band around the forehead (Kramer, von Bruns) and, indeed, the latter was to become the most successful type of reflection mirror and was used for almost a century.

Laryngology, at the beginning was a medical, and not a surgical, speciality like Otology, but the first Laryngologists were not contented with simple observation and began immediately to dedicate their time to endoscopic manipulations. At first, these were only instillations, medications with caustic solutions using the appropriate tampons and syringes, but as they became more expert they soon went on to perform small operations such as polypectomy. These manipulations became much easier following the

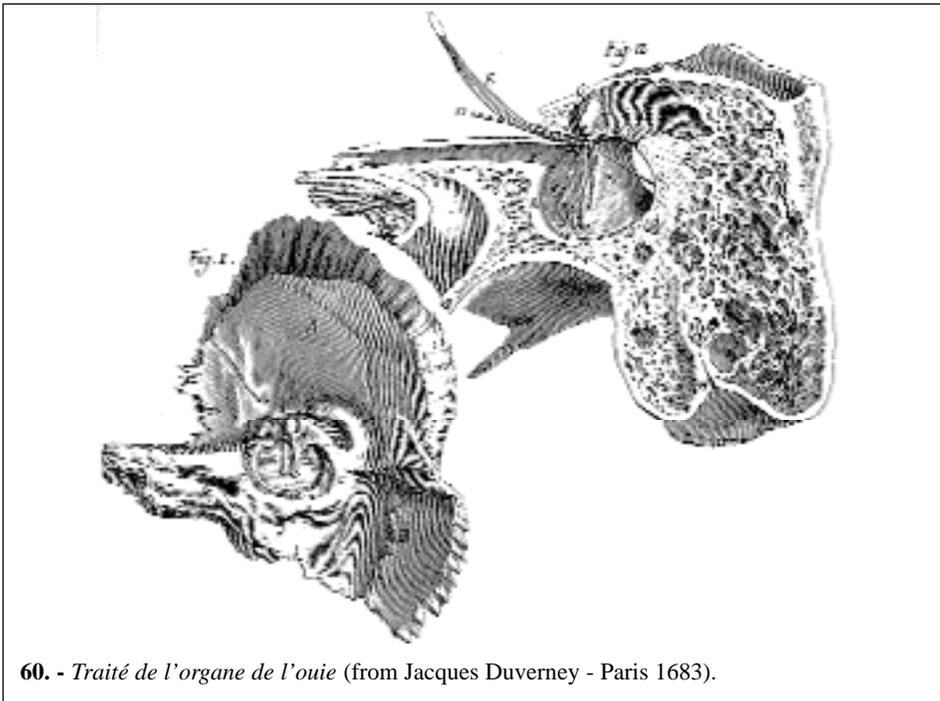


59. - Edmund Jelinek, in 1884, experimented, for the first time, with local anaesthesia by bringing cocaine solutions into contact with the pharyngeal mucosa.

introduction of local anaesthesia by contact with cocaine solutions introduced in Vienna, in 1884, by Edmund Jelinek (1852-1928). The Speciality proceeded from that time onwards acquiring increasing autonomy, leaving behind the initial empirism.

EVOLUTION OF MASTOIDECTOMY

Mastoidectomy, practised for leaking disorders of the middle ear, was of fundamental importance for Otologists, especially in the second half of the 19th Century and in the first half of the 20th. Albeit, the history of mastoidectomy began much earlier: it is well known, in fact, that Jean Riolan (1580-1657) in Paris, was the first to propose drilling of the mastoid, in 1649, who, nonetheless, prescribed it for the treatment of tinnitus and deafness, but not for the leaking forms.



60. - *Traité de l'organe de l'ouïe* (from Jacques Duverney - Paris 1683).

At that time, otorrhea was considered a product of brain excretion until Joseph Duvernay (1648-1730), author, in 1683, of the famous *Traité de l'organe de l'ouïe* containing splendid, detailed illustrations of the anatomical structures of the ear, showed that the purulent secretions were autochthonous in these structures and not derived from the encephalus. Duvernay was also the first to describe cholesteatoma and, at that same time, Marcello Malpighi (1628-1694) reported finding, in a patient who had died from a brain abscess, the presence of caries in the bone in the homolateral middle ear. Surgeons then focused attention on otitic suppuration, attempting treatment to, at least, prevent complications, for the management of which, already since very early times, attempts had been made to drill the skull. Jean Louis Petit (1674-1750), in 1736, carried out the first operation on the mastoid for the presence of discharge. The outcome was successful and this operation was followed by many others.

In 1776, Jasser, a Swedish surgeon of Prussian origin, successfully operated a young deaf otitic patient which not only cured the otitis but led to recovery, in part, of the hearing. This led Jasser to extend the indications of mastoidectomy to all cases of deafness. The theories and results of



61. - A typical bone drill that would have been used at the end of the 18th Century.
(SIO Museum - Rome).

Jasser spread rapidly and operations of mastoidectomy greatly increased until a famous victim diminished the enthusiasms of many. Von Bergen, personal physician to King Christian VII of Denmark, who had, for some time, suffered from progressive deafness, tinnitus and dizziness, informed of the success obtained by Jasser, convinced his colleague, the Court Surgeon, Koeplin, to perform drilling of the mastoid in 1792.

Unfortunately, the patient died 12 days later, following surgery for meningo-encephalitis. The news spread throughout Europe on account of the famous people involved and this contributed greatly to drilling of the mastoid being abandoned in the attempt to cure deafness.

Therefore, this surgical procedure was, after the beginning of 19th Century, destined only for the treatment of discharge disorders even if criticism was expressed for its use, also in these cases.

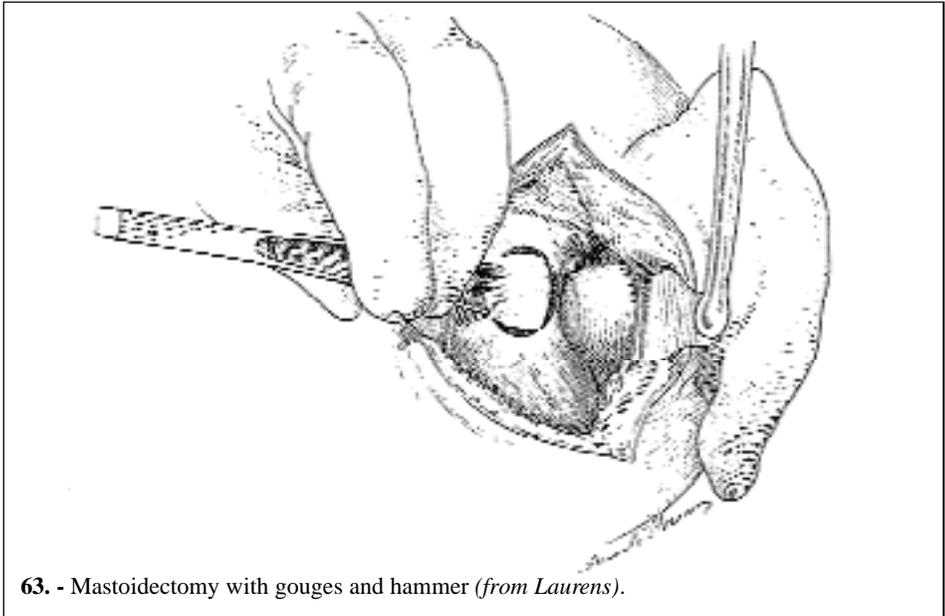
Even Jean Marie Itard (1775-1838), in 1827, supported those who were contrary, on principle, to this type of surgery which he considered totally superfluous. Studies on chronic otitis and related complications, nonetheless, continued and Jean Cruveilhier (1791-1874), in 1828, and Johann Muller (1801-1897), in 1830, defined the characteristics of



62. - Sir William Wilde who launched Otology in Great Britain.

cholesteatoma or *pearl-like tumour* and, slowly, attempts were made to progress also from the surgical viewpoint. William Wilde (1815-1876), who initiated Otology in Great Britain, in 1853, proposed cutting behind the ear, a procedure that was named after him, to evacuate the surface mastoid pus, and, at the same time, Alfred Velpeau (1795-1867) established the indications which justified opening the mastoid, but it was to be Antonin von Troeltsch (1829-1890) who carried out, in 1861, the first

mastoidectomy in the way that it is known today, a surgical procedure codified more precisely by Hermann Schwartze (1837-1910), in 1873, both as far as concerns the technique and the indications which until then had remained somewhat vague. Simple mastoidectomy was a kind of extended anthrotomy, destined essentially for use in acute oto-mastoiditis, but not sufficient for the cholesteatomatous forms. For the latter, surgeons from Berlin, namely, Ernst von Bergmann (1836-1907) and Ernst von Kuster (1839-1930), in 1888, developed a radical operation which, with copious demolition, allowed eradication of the osteitic lesions and a good approach to treat eventual endocranial complications. To allow adequate viewing of this large cavity in the post-operative period, Ludwig Stacke (1859-1918), from Erfurt, and Schwartze himself began to carry out meatoplasty.



63. - Mastoidectomy with gouges and hammer (*from Laurens*).

Radical mastoidectomy was the treatment of choice for almost 70 years leading to a successful outcome in the majority of the osteitic and chronic suppurative processes but resulted in sacrificing the middle ear which consequently meant permanent severe damage to hearing. Otologists, therefore, immediately faced solving the problem of preserving hearing; this led to the development of the so-called modified radicals which were

intended to safeguard the function of the transmission apparatus. The first attempts go back to 1889 with Otto Koerner, in Wiesbaden, and to 1906 with Charles Heath, in London, and William Bryant, in New York.

By the beginning of the 20th Century, mastoidectomy was a well-codified operation, in all the various forms, as well as in all the indications and necessary surgical instruments.

The manual drill had been abandoned already 20 years previously and osteotomies were carried out with scalpel and curettes of various shapes and sizes and with these apparently clumsy instruments Otologists gained manual expertise which enabled them to carry out even delicate procedures, in very little time, with the technique of a master. After the Second World War, treatment with antibiotics, the use of the surgical microscope and the development of increasingly sophisticated reconstructive techniques, paved the way to Otological Surgery which had become increasingly less invasive and more functional, finally closing the great demolitive operation of the mastoid period, forever.

BIRTH OF BRONCHO-OESOPHAGOSCOPY

The practice of direct oesophagoscopy preceded, by about 20 years, the manoeuvres aimed at exploring the bronchial apparatus. In fact, the early positive experiences of Adolf Kussmaul date back to 1868, when, modifying the endoscope of Desormeaux, he managed to diagnose a

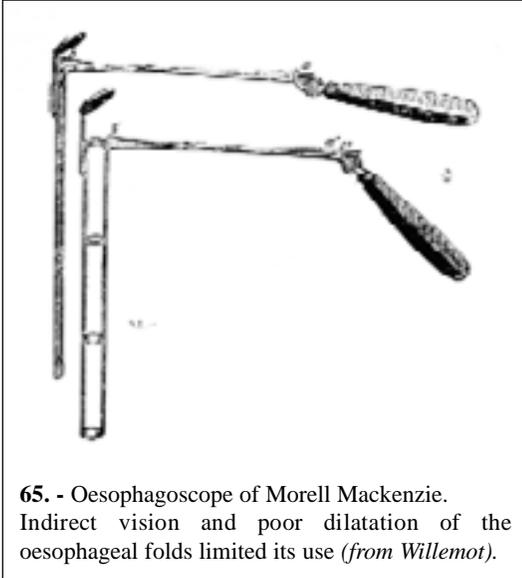
carcinoma of the middle third of the oesophagus.

Both before and after that date, many attempts had been made - with somewhat disappointing results - to perform indirect oesophagoscopies, employing various instruments (Semeleder 1866, Stoerk 1866, Bevan 1868, von Schrotter 1875, Nitze and Leiter 1879, Morell Mackenzie 1879). In 1880, Johann von Mickulicz managed to perform the first gastroscopy, using as a light source the electric light of Leiter, the essential components of which were a red hot platinum thread and water for cooling.

The reason why exploration of the digestive tract preceded that of the respiratory tract was due to



64. - Adolf Kussmaul (1822-1902) was Director of the Medical Clinic in Erlangen and then in Freiburg. He meticulously studied pathophysiological problems related to gastro-oesophageal disorders, and for which, to better his understanding, he performed the very first oesophagoscopy (1868).



the different tolerability to the two types of manoeuvre related to the different tolerability of the zones stimulated. The respiratory mucosa obviously released much more vivacious reflexes.

Playing a determinant role in overcoming this impasse was Edmund Jelinek who, in 1884, in Vienna, introduced, in ENT, local anaesthesia by means of contact with solutions of cocaine, thus enabling endoscopic evaluation to be

extended to the aero-digestive tract in all patients. These investigations had previously been limited to subjects with hyporeflexia.

It was in a patient with severe pharygo-laryngeal hypoesthesia that Alfred Kirstein, in 1895, performed the first direct laryngoscopy which he called *auto-scopy*. The larynx was easy to explore in the indirect fashion by means of a simple mirror; this was not the case for the trachea and bronchi. Doctors and Laryngologists, therefore, focused their attention on inventing instruments, suitable for this purpose.

The first medico-surgical act on the lower respiratory tract was carried out, in 1897, by Gustav Killian in



66. - Mickulicz-Leiter gastroscope (from Brunings).

Freiburg. Using an oesophagoscopic tube, he managed to extract a fragment of bone which had become embedded in the right bronchus and baptized the manoeuvre with the name that it was to keep forever: *bronchoscopy*.

From then onwards, new horizons were available to medicine, particularly Otorino-Laryngology which could thus considerably broaden its competence. The examinations carried out by Killian, in this new field of study, rapidly multiplied and hundreds of bronchoscopies were performed in his clinic, either under local anaesthesia with the patient in a sitting position, or under general anaesthesia, with the patient in the supine position.

Whilst recognizing the great authority of Killian in this field, the greater merit for having spread the use of bronchoscopy throughout the world goes to his best known pupil: Wilhelm Brunings (1876-1958).

The instruments that he invented and which were produced by Pfau in Berlin have, for more than 50 years, been part of the armamentarium of every ENT Unit, the world over.

Brunings introduced the short bronchoscopic tubes, with an internal telescopic-type lengthening, and the oesophageal tubes with a blunt end, oblique and cut in the form of the flute mouthpiece. The lighting system, using a bulb, was incorporated in the handle of the instrument and remained, was still, in the early 20th Century, considered as progress, with respect to the frontal pho-



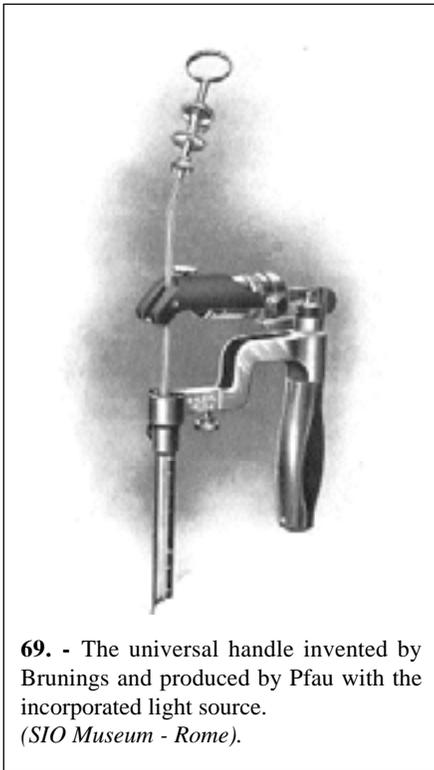
67. - Title page of the famous text of Brunings which played a fundamental role in the widespread use of broncho-oesophagoscopy techniques.



68. - The Cauzard and Chevalier Jackson tube with distal lighting from a minute lamp inserted on a sliding rod. This was greatly appreciated on account of the excellent viewing conditions it provided (*from Laurens*).

tophore used by Killian, Guisez, Ledoux, von Schroetter and others. Nonetheless, this system represented an obstacle for the introduction of instruments for endoscopic manoeuvres, and, therefore, Hasslinger modified the original handle designed by Brunings, moving the light source to a slightly lateral position. Further progress was made in 1899, thanks to Chevalier Jackson in Philadelphia.

Jackson was the first to introduce distal illumination by inserting a

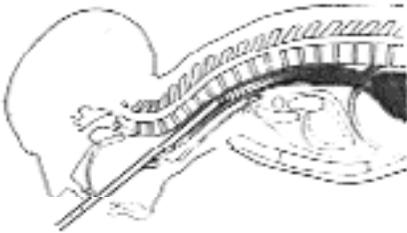


69. - The universal handle invented by Brunings and produced by Pfau with the incorporated light source. (*SIO Museum - Rome*).



70. - Oesophagoscopy with the Guisez tube and Clar mirror. There are clearly difficulties to be overcome to achieve good distal illumination with this technique (*from Laurens*).

small lamp, mounted on a thin rod, which ran along a small canal in the lateral wall of the endoscopic tube. This new modification left the proximal opening of the tube itself completely free and provided a much better light. Jackson's instrument was then further perfected in London, after the First World War by Sir Victor Negus. Thanks to the intuition of these great pioneers, the instrument and the bronchoscopy technique were already codified in the early 20th Century and remained almost unchanged for more than half a century until the introduction of the modern optic fibres.



71. - Oesophagoscopy in the Bensaude position to improve viewing, completely disregarding patient comfort (from *Laurens*).



72. - Oesophagoscopy in the Mouret position. Mouret invited his patients to pretend they were leaning on the window sill talking to their neighbour, opposite on a higher floor (from *Laurens*).

A FORGOTTEN PLAGUE: DIPHTHERIA

Diphtheria had, for centuries, appeared only as sporadic or endemic manifestations, but at the end of the 16th Century, it devastated Europe (in particular, France, Spain, Italy and Scandinavia) with periodic spreading of

very severe epidemics which decimated primarily the paediatric population.

Laryngeal localization was that most dreaded and, unaware of the causes, it was considered as a disease in itself and called, in the various countries, by different names (*morbis strangulatorius*, *suffocatio stridula*, *mal di gola affogativo*, *suffocating angina*, *mal del garrotillo*, etc.), but all having one symptom in common: suffocation. The name *croup* was attributed to this morbid form only in 1765, by Francis Home, having derived the expression from a Scottish verb to croop (strangle).

The only treatment possible was tracheotomy, despite the high rate of intra-operative



73. - Tracheotomy in the 18th Century. Illustration from the Surgical Treatise by René C. de Garengeot (from Guerrier).



74. - The famous writings of 1826 in which Bretonneau put forward his theories which were to revolutionize the convictions of those times.

mortality (more than 80%) which for a long time limited its use.

For more than two centuries, the periodic epidemic exacerbations of this morbid condition spread terror amongst the populations, without any progress being made as far as concerned the diagnostic and therapeutic aspects. In 1807, Napoleon Bonaparte launched an international award, with 12,000 Francs in gold as the prize to whoever contributed to a better understanding of croup.

This project had been determined by the death, at only 5 years old, of the Crown Prince of Holland, nephew of the Emperor.

None of the 79 contributions presented for the award led to any real progress in the understanding of the disease; a new phase commenced in 1826, when Pierre

Fidèle Bretonneau published the results of his observations during the disastrous epidemics that struck Tour and the surrounding region between 1815 and 1821.

Finally, Bretonneau clarified that the pharyngeal form, which was lighter, and the laryngeal form, which was more severe, were not two independent morbid conditions, as had previously been held, but localizations of a same disease that he called *diphtheria* (from the Greek *diftera* = membrane) due to the presence of the pseudomembrane characteristics.

In this regard, it should not be forgotten that, already in 1749, the Italian from Cremona, Martino Ghisi, had drawn attention to the typical characteristics of the pseudomembranes.

Bretonneau greatly stimulated the use of tracheotomy as the only means by which to save patients from suffocation and, in this regard, also pro-

posed new instruments such as the curved cannula with contra-cannula, the tracheal retractor, etc. It was to be his pupil, the great Armand Trousseau, who codified the technique of the surgical procedure, as it is known today.

Trousseau had the great merit of establishing that tracheotomy should be carried out as soon as possible, and not at the last moment as had been the case for centuries, thus achieving a considerable reduction in the intra-operative death rate.



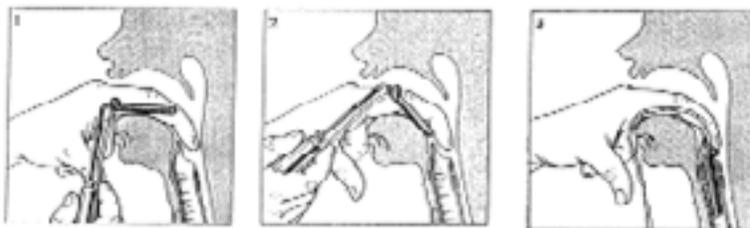
75. - Armand Trousseau (1801-1867), the most ardent sustainer of tracheotomy, definitively codified the technique.



76. - Joseph O'Dwyer (1841-1898) perfected the laryngeal intubation technique in croup and was responsible for it becoming used throughout the world. He died after becoming infected by one of his small patients.

Laryngeal intubation

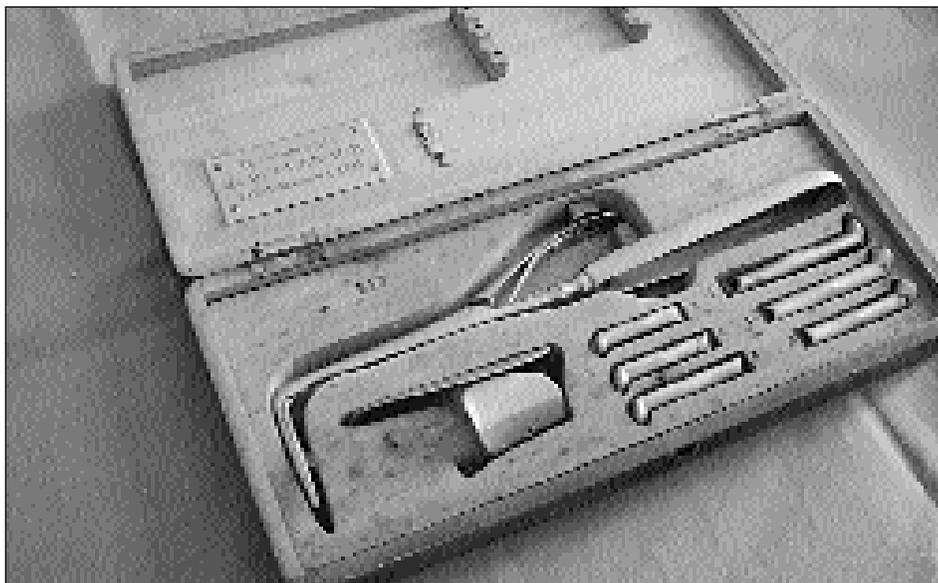
In the mid 19th Century, tracheotomy was still the only form of effective treatment for the laryngeal localisation of diphtheria, but it was associated with severe risks of complications and, therefore, less invasive approaches were sought in the attempt to maintain the larynx viable. The intubation era had thus begun. The first attempt to adopt this method for croup was made by the famous surgeon Friedrich Dieffenbach, in Berlin, in 1839, but results were disappointing. Albeit, heralded as the real inventor was the French



77. - The laryngeal intubation technique: the tube was made to slide along the index finger of the left hand which hooked and fixed the epiglottis (*from Laurens*).

paediatrician Eugène Bouchut who, on 18th September 1858, presented his intubation method, at the Medical Academy in Paris, which consisted in the introduction in the larynx, of a small metal tube.

The method, unfortunately very traumatic, was met with great scepticism by the Members of the Academy (only Malgaigne defended him) but, above all, after the very harsh words of Trousseau, it was totally rejected. Disappointed, Bouchut went into retreat, giving up the idea to make those technical changes which would have made laryngeal intubation easy to perform. Those modifications were, instead, realized years later, in 1885, by the paediatrician in New York, Joseph O'Dwyer.



78. - Intubation set of Egidi-Ferroudi (*SIO Museum - Rome*).



79. - Intubation of a small patient with diphtheria performed by Dr. Josias (*Painting by Chicotot, Paris, Musée de l'Assistance Publique*).

The instruments designed by O'Dwyer, as well as the technique he proposed for intubation, were soon highly successful not only with paediatricians but also laryngologists, first in USA, then Europe where various changes were made (Egidi, Ferroud, Collin, Aviragnet, Weil, Perez, Valagussa, Citelli etc.), to the original instrument, none of which substantial.

Use of this technique became very widespread, between 1890 and 1925, for the treatment of children with croup and, in the majority of cases, took the place of tracheotomy.

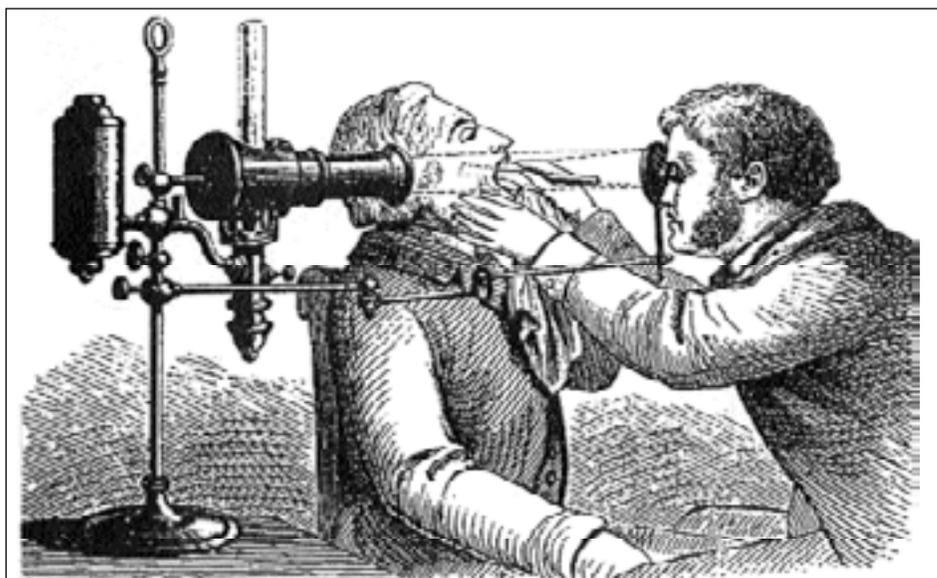
From 1925 onwards, thanks to the progress made in bacteriology and immunology, the incidence of diphtheria gradually dropped, until it almost completely disappeared, in the more developed countries.

Following the discovery of the bacterium responsible (Klebs 1883, Loeffler 1884) and of the anti-toxin (Behring and Kitasato, 1890) which triggered serumtherapy, until the introduction of the anatoxin (Ramòn 1923) which led to the possibility of mass vaccinations, the medical treatment for the infection of diphtheria had finally won, after centuries, of this severe plague.

OUTPATIENT UNITS ONE HUNDRED YEARS AGO

Otorhinolaryngology was born, as is well known, in the second half of the 19th Century from the union of Otology (a branch dealing primarily with surgery) with Laryngology (medical speciality) to which Rhinology had some time later become associated.

The anatomical relationship upon which this union was founded, was already evident when, in 1868, Czermack began to explore the rhinopharynx where the tubes converge, the nasal cavities and the pharynx. It was at that time that our Speciality originated, even if several years were to go by before it became official.



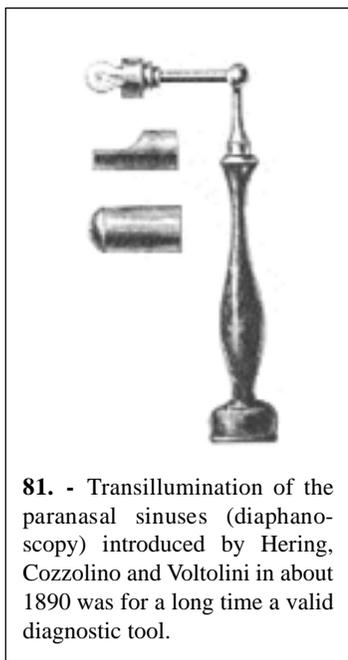
80. - Tobold apparatus (1887) comprised a petroleum lamp, the light of which was concentrated, reaching, by a system of mirrors and lens, the reflecting mirror (*from Reuter*).

The practical activity of the new specialists, from 1880 to the beginning of the 20th Century was carried out mainly in the Outpatient Unit and only in a few cases in specific Hospital Divisions.

The Outpatient Units, whether private or set up by public institutions, were, for a long time, where Otorhinolaryngology procedures, concerning diagnosis and treatment, were performed.

How would a specialistic Outpatient Unit have been organized in the period between the 19th and 20th Century and what structures would have been available?

Since a synthetic description is warranted, a schematic outline will be given which, whilst unacceptable from a literary viewpoint, is necessary in order to proceed chronologically and to provide as much data as possible.



81. - Transillumination of the paranasal sinuses (diaphanoscopy) introduced by Hering, Cozzolino and Voltolini in about 1890 was for a long time a valid diagnostic tool.

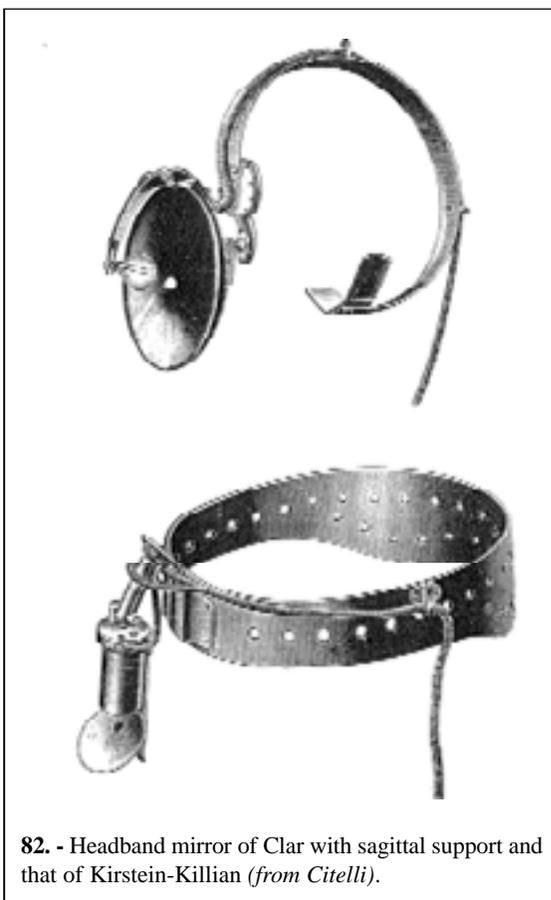
Diagnostic activity

In order to explore the organs related to ENT competence, it was necessary to have not only adequate endoscopic equipment available, but, above all, valid sources of light. The medical literature from the 19th Century refers to a vast number of instruments, of valves, specula and lights which used all kinds of inflammable substances: such as gas, acetylene, petroleum, paraffin, magnesium, oxygen and hydrogen mixtures, etc. The main problem was availability of an adequate light source as well as to be able to concentrate the rays on the cavity to be examined by means of lens and mirrors.

Sunlight was the first to be used, but for obvious reasons, was not always available and, therefore, it was necessary to use lamps. The first inflammable substance to be used for lighting was gas which, at the end of the 19th Century, was available in almost all homes and was used in preference to others such as magnesium or acetylene, which gave a brighter light, but ran the risk of deflagration. The explosion of one of these lamps, fortunately not involving any people, but which destroyed the surgery of

Fraenkel, in Berlin, caused a great sensation. The gas was used either alone or associated with other inflammable substances, such as in the Auer lamp, which burned cotton wool soaked in a solution of zinc oxide and lanthanum.

The arrival of the electric bulb (Edison 1879) offered the Otorhinolaryngological Outpatient Unit a new important means of illumination, even if should not be forgotten that, before it became fully accepted, several years were to go by. Due to the high costs of electric light, it was used by only a few, and, at least until the early part of the 20th Century, traditional sources of light continued to be used. Small bulbs (*mi-*

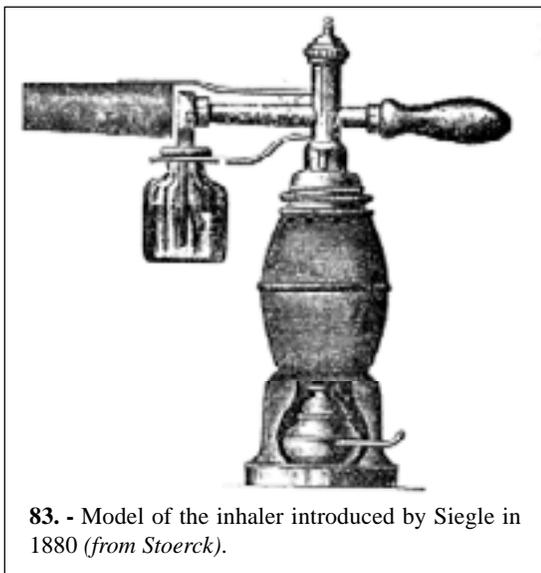


82. - Headband mirror of Clar with sagittal support and that of Kirslein-Killian (*from Cielli*).

gnon, 1880) led to the development of practical diagnostic instruments, such as photophores (Hélot-Trouvé, Killian), headband mirrors (Clar, Kirslein, Roth), equipment for transillumination (Héring, Voltolini, Cozzolino), endoscopes (Killian, Brunings, Mickulicz, Nitze-Leiter).

Functional diagnosis

Whilst inspection of the areas of ENT interest represented the major part of the diagnostic workup in the Outpatient Unit setting, it should not be forgotten that, at the end of the 19th Century, this was integrated with functional evaluations which following the empirism of the initial phases, gradually acquired an increasingly safer reliability. Exploration of hearing



83. - Model of the inhaler introduced by Siegle in 1880 (from *Stoerck*).

function, for example, was no longer carried out only with a whispered or spoken voice or watch tests, but with the use of instruments such as the tuning fork of Hartmann, the acoumeter of Politzer, the whistle of Galton, the monochord of Struycken etc.

At the end of the 19th Century, the acoumetry phase thus began; it was no longer sufficient to reveal the deficit, it also had to be measured.

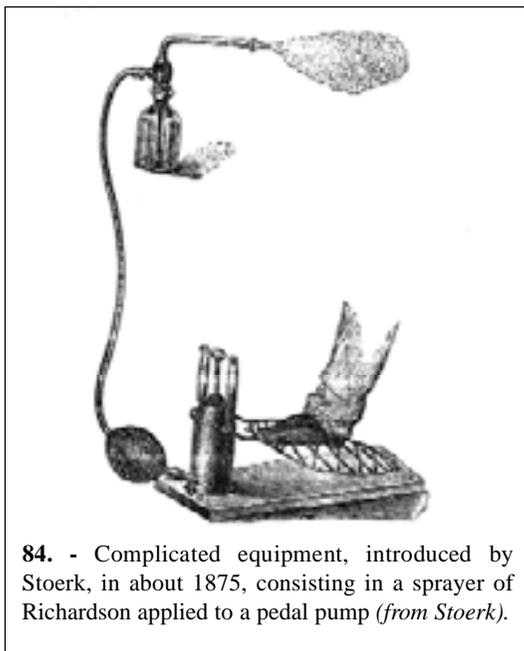
It was also during this period

that the first studies on smell (Zwaardemaker, Grazzi) and taste (Luciani, Biffi) were carried out.

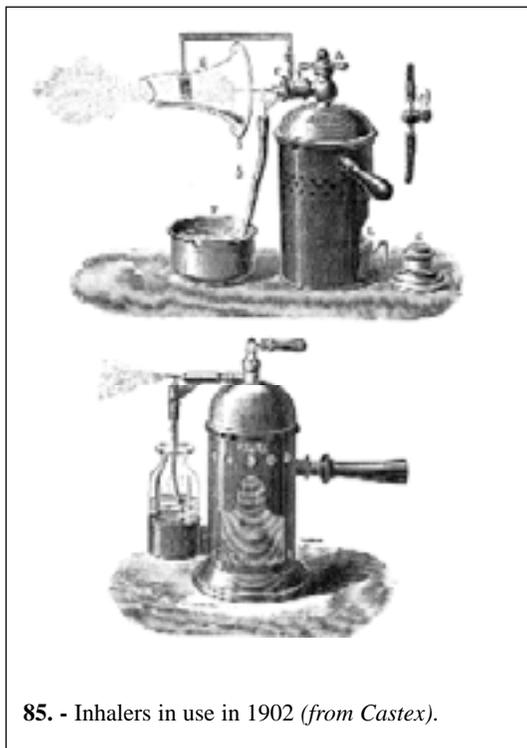
Activities were not related only to diagnosis, in the specialistic Outpatient Units, but, between 1880 and 1920, medical and surgical treatment were also carried out.

Medical treatment

Medical treatment was essentially focused on the local application of medications (primarily, antiseptics and caustic agents, but also balsamic substances, emollients, astringents etc.) applied with a dropper, sponges mounted on small sticks made of various materials (whalebone, wood, ebonite, volcanite, bakelite), metal cottonwool containers of various designs, powder blowers.



84. - Complicated equipment, introduced by Stoerk, in about 1875, consisting in a sprayer of Richardson applied to a pedal pump (from *Stoerk*).



85. - Inhalers in use in 1902 (from Castex).

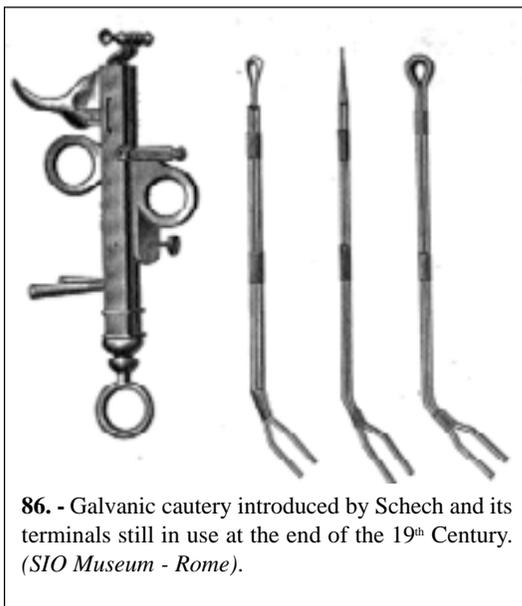
Inhaling was one of the treatments very much in vogue at that time. This was performed using special equipment which, under pressure directly reduced the pharmacological preparations into fine spray (Richardson, Stoerk, Lewin), or carried them with a water vapour (Siegle, Gradenigo-Stefanini). Electrotherapy was also very popular between the end of the 19th Century and the first quarter of the 20th Century.

Galvanic and faradic stimulations were used and small electric motors were employed to effect a vibrating massage, particularly of the nasal and pharyngo-oesophageal muscles.

Surgical treatment

Small operations were also carried out in the Outpatient Unit, such as incision of phlegmons, tympanic paracentesis, removal of small neoformations, biopsies, laryngeal intubation, chemical and galvanic caustics, but even more important procedures such as tonsillectomy and adenoidectomy.

Thus the Outpatient Unit was equipped with many of the necessary instruments. During that period, the production of these



86. - Galvanic cautery introduced by Schech and its terminals still in use at the end of the 19th Century. (SIO Museum - Rome).

surgical instruments and equipment reached extraordinary numerical levels, since each specialist of importance usually used those which he himself had devised or that he had modified to his own personal requirements. As far as concerns the practical realization, highly qualified artisans were called upon, who were well known for the professional quality of their work, such as Leiter, Pfau, Trouvé, Adams, Collin, Reiner, Charrière. Instruments prepared by any of these are, still today, a century later, in perfect working order.

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