

Upper Air Passages," opened by Dr. Percy Kidd and Dr. P. McBride at a meeting of the Laryngological Society, and reported in the July number of the Journal; papers by Dr. Dundas Grant, on the treatment of "Deflections of the Nasal Septum," and on "Nasal and Aural Diseases as a Cause of Headache"; by Dr. StClair Thompson, on "The Rhinitis of Inherited Syphilis"; and by Dr. Price-Brown, on "Non-diphtheritic Pseudo-Membranous Rhinitis," etc., etc. Several new or modified instruments, and a few new books relating to the subject, have appeared and received notice in this Journal.

### RETROSPECT OF OTOLOGY.

BY DUNDAS GRANT AND ATWOOD THORNE.

AMONG the most interesting events in the otological world occurring during the past year we must signalize the sixth International Otological Congress, held in London under the presidency of Professor Urban Pritchard. A general report of the proceedings was published in the JOURNAL OF LARYNGOLOGY for September, along with the *President's address on The Growth of Otological Science* (J. L., 445). Many of the papers have been reproduced in our pages, but the very complete report of the *Discussion on the Indications for Opening the Mastoid in Chronic Suppuration of the Middle Ear* (J. L., 511) will have peculiar interest from the number and importance of the contributors. Opinions were unanimous as to the overwhelming excellence of the Museum, for which the greatest credit is due to Mr. Arthur Cheatle (secretary of the Museum sub-committee) and the coadjutor in his labours, Dr. Jobson Horne. The publication of the catalogue will be awaited with impatient interest.

Dr. Woods made an important contribution to otology in his address on *General Treatment in Diseases of the Ear* before the British Laryngological Association (J. L., 195). We must also draw attention to the collective investigation as to the value of *Operative Interference on the Drum and Ossicles in Chronic Middle-Ear Suppuration* communicated by Mr. Cheatle (J. L., 50). It will be further considered in this retrospect.

The arrangement of the matter in the following retrospect is mainly anatomical, and the abbreviations of the references will be explained by the table at the end. The letters J. L., however, indicate the volume of the JOURNAL OF LARYNGOLOGY for 1899, and the numbers following them the page in that volume.

AURICLE.—Rohrer (J. L., 608) indicates certain *cycloids* which include the various anatomical landmarks on the auricle, and which, he considers, offer a sort of geometrical principle on which the folds of the auricle are formed. Henke (J. L., 502; M. f. O., February, 1899) describes a curious case of *Excess Malformation*. A case of *Dermoid Cyst* (J. L., 365) is narrated by Singer; one of *Epithelioma* eradicated by operation by Dundas Grant (J. L., 28); one of *Tuberculosis* of the lobule by Gerber (J. L., 148); and a singular case of successful *Replacement of an Auricle* bitten off by a horse by W. J. Brown (J. L., 27; L., June 4, 1898).

EXTERNAL MEATUS.—Two cases of *Exostosis* are described by Wingrave (J. L., 679) and Rutten (J. L., 601). Malignant disease is illustrated by G. Connal's case of *Sarcoma* (J. L., 606) and Grant's one of *Epithelioma* extending into the petrous bone (J. L., 673). *Papilloma* occurred in a case of Gruber's (J. L., 89). Theobald recommends boric acid and oxide of zinc for insufflation in *Otomycosis* (J. L., 427). *Congenital and Acquired Atresia* was discussed by Hartmann (J. L. 592; I. O. C.), who agreed that the former was inoperable, the latter often operable. *Furuncles* are treated by Lamann (M. f. O., February, 1899; J. L., 437) by means of tampons smeared with ointment of carbolic acid, oxide of zinc, and vaseline. Stern's case of *Living Maggots in both Ears* is a remarkable one (J. L., 153).

MEMBRANA TYMPANI.—The *Closure of Old Perforations* by means of trichloroacetic acid, now fairly well known, has been found successful by Szenes (J. L., 88) and Levy (J. L., 564; Therap. Monats., No. 5, 1899). *Bilateral Rupture of the Membrane*, spontaneous and traumatic, is discussed by Stankowski (J. L., 165; M. f. O., August, 1898). He enumerates the published cases, but omits one described by Gelle at the International Otological Congress at Florence. Among other interesting observations is one of *Perforation due to Scalding Oil* introduced into the meatus, noted by Martin (J. L., 328; Laryn., March, 1899). *Extreme Thinning of the Membrane* occurred in a case of Furniss Potter's (J. L., 561), the aural symptoms having lasted only three or four weeks. *A Bleb-like Cicatrix*, due apparently to the presence of a rusty needle, was seen in a case of Singer (Aust. Ot. Soc.; J. L., 365).

CHRONIC NON-SUPPURATIVE CATARRH OF THE MIDDLE EAR.—Heimann (Wien. Klin. Rund., 48-51, 1899; J. L., 327), under the title of *Progressive Deafness*, condemns various attempts or pretensions to treat sclerosis of the middle ear, some very rightly. Snow (J. L., 602; I. O. C.) is more optimistic in a paper on *Twentieth-Century Prognosis in Chronic Catarrhal Deafness*, acting

on the principle that all pathological conditions in the nose and naso-pharynx must first be removed, and he narrates (Lar., December, 1898; J. L., 164) cases illustrating modern possibilities in chronic catarrhal deafness. *Pneumatic Massage of the Ossicles and Membrane* by means of an electric air-pump is advocated by Max Breitung (J. L., 311), who thinks the stimulus may bring the disconnected neurons into functional continuity, by Webster (Laryn., April, 1899; J. L., 439) and Ostmann (I. O. C.; J. L., 634). Lucae (I. O. C.; J. L., 640) prefers mechanical movement with his *pressure-probe*, and Dundas Grant considered (I. O. C.; J. L., 640) that *indirect massage of the ossicles* was the factor to which the good results were attributable in some cases treated by mechanical vibration applied to the spinal column. Goldstein discusses *Therapy of the Tympanic Mucous Membrane* with considerable fulness (I. O. C.; J. L., 656). Malherbe practises "*Scooping-out*" of the *Petro-Mastoid Bone* (I. O. C.; J. L., 644), attributing the deafness in great measure to sclerotic narrowing of the cavities. Grazzi treats *Chronic Catarrhal Inflammations of the Pharynx* connected with diseases of the ear by means of an instrument with small rollers (I. O. C.; J. L., 600). *Trephining the Stapedial Foot-plate for Otitis Media Sclerosa* is deprecated by Alderton (J. L., 360). Burnett advises *Removal of the Incus for the Relief of Aural Vertigo* (Am. Journ. of Med. Sc., April, 1899; J. L., 503), so as to make the stapes more yielding to pressure from within. He advocates *Tympanotomy with Removal of the Incus* in progressive hardness of hearing (Amer. Ot. Soc.; J. L., 424), the improvement sometimes occurring markedly in the opposite ear. (The variety and divergence of views as to the treatment of "sclerosis" may be attributed in great measure to the uncertainty as to the pathology and diagnosis of the condition.—D. G.) Pyncheon discusses the technique of *Tympanic Inflation*, its various forms and indications (Laryn., November, 1898; J. L., 52). *Chronic Deafness and its Causation by Nasal and Naso-Pharyngeal Obstruction* is discussed by Mayo Collier (J. L., 18), A. T. Haight (J. L., 547; I. O. C.), and Calhoun (J. L., 270; Laryn., March, 1899). Bobone (J. L., 546; I. O. C.) read a paper on the *Early Involution of Adenoid Growths in the Riviera*.

ACUTE SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.—Lermoyez (J. L., 625; I. O. C.) brings forward statistics to show that *Acute Suppuration of the Middle Ear* is sometimes, at any rate, contagious. He finds, for instance, that in hospital, of 100 children with measles about 20 will develop acute suppuration of the middle ear, while in private practice only about one child will do so.

Milligan (J. L., 28; B. L. R. A.) describes a case of *Acute Suppuration* cured by opening of the cortical mastoid cells; and Tressilian one of *Bilateral Acute Otitis, with Facial Erysipelas*, the latter not affecting the external meatus on either side (J. L., 77; B. L. R. A.). It was thought that the erysipelas was carried by the blood-current, and was not due to direct extension. Trautmann relates a case of *Impaction of a Cherry-stone in the Right Eustachian Tube*, causing acute and then chronic otitis media (J. L., 167).

CHRONIC SUPPURATIVE INFLAMMATION OF THE MIDDLE EAR.—Various measures for the treatment of *Chronic Suppuration of the Middle Ear* are advocated by Goldstein (J. L., 160; Laryn., December 18, 1898), who after thoroughly cleansing the ear by the *dry method—i.e.*, by means of Siegle's speculum, etc.—applies nasophen in powder, or if there is a large perforation he uses a dry-gauze tampon. Faulder White (J. L., 663; I. O. C.) recommends careful *irrigation* (by the surgeon) with silico-fluoride of potassium by means of a Higginson syringe; while De Santi (J. L., 663; I. O. C.) relates twenty-six cases where, long-continued local treatment having failed, good results followed *Operation on the Antrum or both Antrum and Attic*. Buys (J. L., 432) recommends careful syringing with *oxygenated water*, and the subsequent application of sterilized wool pulp. William Hill (J. L., 11; Lond. Laryn. Soc.) showed a case of *Paresis of the Right Facial Nerve and the Right Side of the Palate following Tympanic Suppuration*. The case was complicated by marked inflammatory changes in the affected half of the palate. Rudolph and Bezold (J. L., 221; A. of O., vol. xxvi., No. 4) investigated eighteen *Fatal Cases of Measles*, and found that even at a very early stage there was muco-purulent exudation in the tympanum, even though the Eustachian tube was comparatively unaffected. Hartmann (J. L., 620; Zeitschrift f. Ohren., xxxiv. 1) discusses the *Influence of Otitis Media on the Alimentary System in Infants*. A case of *Epilepsy of Aural Origin* is narrated by Lannois (J. L., 607). A man aged twenty-six had had as a rule epileptic attacks regularly every week for thirteen years. These ceased at once when a discharge from the ear had been successfully treated.

*Operative Interference on the Drum and Ossicles in Chronic Middle-Ear Suppuration* was the subject of a study by Arthur Cheate (Practitioner, October, 1898; J. L., 50), who collated the opinions of a number of well-known aural surgeons, both here and abroad. Sir William Dalby is quoted as expressing himself as follows: "The removal of the ossicles becomes merely a detail in some of the necessarily grave operations for special grave cases;

that their removal cannot, I think, usefully be discussed apart from those operations which occasionally are required to save life." The opinion of most aurists coincide as to the value of removal of the ossicles and the remains of the membrane in certain cases of chronic suppuration and in cases of deafness resulting from fixation of the ossicles and other adhesive changes occasioned by suppuration of the middle ear. Dundas Grant (J. L., 59) comments on these opinions, and advocates even an extension of the indications for ossiculectomy. He maintains that diminished bone conduction is not invariably to be considered a contra-indication (I. O. C.; J. L., 507).

TUBERCULAR DISEASE OF THE MIDDLE EAR.—Kretschmann (J. L., 219; Münch. Med. Woch., i. 99) and Milligan (J. L., 586) both read papers on this subject. The latter considers that primary tuberculosis of the middle ear and adjoining cells is comparatively common, although the bacillus is seldom found.

CHOLESTEATOMA.—Biehl (J. L., 215; Wien. Klin. Rund., No. 29, 1898) gives a historical review of the development of our knowledge of the *Genesis of Post-Suppurative Cholesteatoma*. Wingrave (B. R. L. A.; J. L., 185) exhibited *Microscopical Preparations illustrating Cholesteatomatous Changes associated with Chronic Suppuration*. Lewis (Amer. Ot. Soc.; J. L., 427) showed a case of *Cholesteatoma complicating Bezold's Mastoiditis*, and Siebenmann (J. L., 312) described a Modification of Körner's *Plastic Method in Operations for Cholesteatoma*.

DISEASES OF THE MASTOID.—Morton (Laryn., February, 1899; J. L., 329) describes a case of *Bilateral Mastoiditis*. Grunert (Münch. Med. Woch., No. 20, 1899; J. L., 433) discusses the various ear conditions causing *Facial Paralysis*. Krepuska (Hungar. O. and L. Soc.; J. L., 88) showed a case of *Mastoiditis without Otitis*. Bar (J. L., 600; I. O. C.) discusses the difficulty in the *Differential Diagnosis of Anterior Abscesses of the Mastoid and of Furunculosis of the External Auditory Meatus*. Jones (Liverpool Med.-Chir. Journal, January, 1899; J. L., 434) insists on the importance of the *Early Detection and Treatment of Suppuration in the Tympanum and Mastoid in Acute Otitis Media*. Barragociarella (Boll., August, 1898; J. L., 49) describes Cozzolino's *Symptom of Endomastoiditis with Empyema*, namely, the detection of pus running in a single line over the inner wall of the tympanic cavity from the postero-superior to the postero-inferior segment. (Siegel's exhausting speculum is a valuable aid in this examination.—D. G.)

OPERATIONS ON THE MASTOID.—At the International Otological

Congress (J. L., 311), Professors Politzer, MacEwen, Luc and Knapp opened the discussion on the *Indications for opening the Mastoid in Chronic Suppuration of the Middle Ear*. Dench (J. L., 641; I. O. C.) read a paper on the *Operative Treatment of Mastoid Inflammation*, and Krebs (M. f. O., September, 1898; J. L., 160) discusses the same subject. Pooley (Laryn., April, 1899; J. L., 382), Reinhard (J. L., 312), and Keimer (J. L., 313) brought forward *Mastoid Operation Cases* of great interest, as did also Grant (B. L. R. A.; J. L., 304), Bacon (Amer. Ot. Soc.; J. L., 306), Zaalberg (Laryn. Soc. of Netherlands; J. L., 138), Singer (Aust. Ot. Soc.; J. L., 90), Ménière (Arch. Inter., September, 1898; J. L., 220), and others.

**DANGEROUS SEQUELÆ OF SUPPURATIVE MEDIAN OTITIS—EXTRA-DURAL ABSCESS AND LATERAL SINUS THROMBOSIS.**—Milligan (B. L. R. A.; J. L., 25) described two cases of *Extra-dural Abscess*, in one of which there was a hole the size of a sixpence through the skull, which caused an *Occipito-Parietal Subperiosteal Abscess*. Preysing (A. of O.; J. L., 163) gives details of two cases of *Extra-dural Abscess occurring in Acute Mastoid Disease*. Lewis (Amer. Ot. Soc.; J. L., 428) brought forward a fatal case of *Tuberculous Extra-dural Abscess*. Cozzolino (Boll., October, 1898; J. L., 277) relates various cases of *Primary Thrombo-Phlebitis of the Jugular and Transverse Sinus*, and of *Extra-dural Otitic Cerebral and Cerebellar Abscess*. Sheppard (J. L., 308), Dunn (J. L., 160; A. of O., December, 1898), Alt (J. L., 363; Aust. Ot. Soc.), Lindt (J. L., 51; Corresp. Bl. f. Schweiz. Aerzte, No. 13, 1898), and Grant (J. L., 561; B. L. R. A.) all showed one or more successful cases of *Suppurative Thrombosis*. Whiting (A. of O., December, 1898; J. L., 167), gives a Contribution to the study of the *Clinical Stages* and to the *Technique of the Operation for Sinus Thrombosis*. Ramsay (Lancet, October 22, 1898; J. L., 220) describes a case of *Otitic Pyæmia* successfully treated with injections of *Antistreptococcic Serum*.

**CEREBRAL AND CEREBELLAR ABSCESS.**—Tilley (Laryn., November, 1898; J. L., 52), Lake (St. Thomas's Hosp. Reports, 1897; J. L., 328), Barham (A. of O., xxvi., No. 4; J. L., 215), Hammer-schlag (Aust. Ot. Soc.; J. L., 365), Gruening (Amer. Ot. Soc.; J. L., 357), Keimer (J. L., 314), De Santi (J. L., 665), Delie (J. L., 599), Moure (I. O. C.; J. L., 597) bring forward cases of *Temporo-Sphenoidal Abscess*, many of the cases successful, and some fatal with full notes on the condition found post-mortem. Cases of *Cerebellar Abscess* are reported by Green (Amer. Journ. of Med. Sc., April, 1899; J. L., 432), Hansberg (German Scientists and Physicians; J. L., 314), Alt (Aust. Ot. Soc.; J. L., 363), Waggett

(B. M. A.; J. L., 484), and Gruber (Aust. Ot. Soc.; J. L., 89). Gradenigo (Ann. des Mal., December, 1898; J. L., 216) regrets the infrequent use of the *Ophthalmoscope in Intracranial Complications of Suppurative Otitis*.

INTERNAL EAR.—*Traumatic Affections of the Internal Ear* are discussed by Muller (Deutsch. Med. Woch., 31, 1898; J. L., 51) and McCaw (A. of O., Rhin. and Lar., February, 1899; J. L., 620). Culbertson (Ann. of Otol., Rhin. and Lar., February, 1899; J. L., 620) describes a case of *Delusional Insanity resulting from Auditory Concussion* produced by the firing of a gun near the patient's ear. Cooseman (J. L., 505; I. O. C.) offers a *Contribution to the Study of "Occupation" Deafness*, enumerating the conditions necessary for a noisy trade to injure the hearing. Dundas Grant (J. L., 672) describes a case of *Sudden Nerve Deafness with Unusual Features*, possibly due to *Hysteria*, Urbantschitsch (Aust. Ot. Soc.; J. L., 363) one of *Speech Deafness*, probably due to the same cause, and Singer (Aust. Ot. Soc.; J. L., 364) a case of *Psychical Deafness*. Lerner (M. f. O., October, 1898; J. L., 274) discusses *Nerve Deafness due to Tabes*. Kaufmann (A. of O., vol. xxvi., No. 4; J. L., 218) describes a case of *Homolateral Acute Affection of the Auditory, Facial and Trigeminal Nerves*, probably rheumatic. Cases of *Exfoliation of the Labyrinth* are reported by Faulder White (L., December 17, 1898; J. L., 439) and Von zur Mühlen (Petersburg Med. Woch., No. 13, 1899; J. L., 438). Siebenmann (Corresp. Blatt. für Schweizer Aerzte, No. 1, 1899; J. L., 329) discusses *Spongy Ossification of the Capsule of the Labyrinth* as one pathologico-anatomical cause of the so-called sclerosis of the middle ear, and Manasse (A. of O., October, 1898; J. L., 163) describes *Cartilaginous Interglobular Cavities in the Capsule of the Human Labyrinth*.

MÉNIÈRE'S SYMPTOMS.—Siethoff (Laryn. Soc. of Netherlands; J. L., 140) maintains that he has cured nineteen cases of true *Ménière's Disease* by operating on abnormal conditions in the nose, while Lannois and Tournier (Ann. des Mal., October, 1898; J. L., 438), as also Guye (Laryn., April, 1899; J. L., 434), dwell on the frequent *Dependence of Agoraphobia on Ear-disease*.

DEAF-MUTISM.—Lake (Treatment, August 24, 1899; J. L., 684) offers *An Attempt to explain the Occasional Cure of Deaf-mutism following Removal of Adenoids*. Urbantschitsch (Wien. Klin. Rundsch., Nos. 9 and 10, 1899; J. L., 438) advises *Methodical Hearing Exercises for Deaf-mutes and Deaf People*.

NEW GROWTHS.—Betham Robinson (J. L., 119) relates a case of *Squamous-celled Carcinoma following a Chronic Suppurative*

*Otitis Media.* Dundas Grant (B. L. R. A.; J. L., 673) showed a case of *Epithelioma involving the Temporal Bone*. Druault (Ann. des Mal., August, 1898; J. L., 215) gives an account of a case of *Sarcoma of the Internal Auditory Meatus*, with the post-mortem appearances. Körner (A. of O., xxvi., No. 3; J. L., 218) and Lubarsch (A. of O., October, 1898) give an account of a case of *Chloroma of both Temporal Bones*, with the pathology of this rare form of tumour. Nicoll (L., October 29, 1898; J. L., 502) gives an account of a *Malignant Growth* originating in the middle ear and invading the brain.

CONSTITUTIONAL DISEASES AFFECTING THE EAR.—Uchermann (J. L., 593; I. O. C.) read a paper on *Rheumatic Diseases of the Ear*. Blau (J. L., 50) discusses the DISEASES OF THE EAR, due to *Measles and Influenza*, Morf (A. of O., October, 1898; J. L., 163) those occurring in acute and chronic *Bright's Disease*.

VARIOUS FORMS OF TREATMENT.—Poltizer (J. L., 51) demonstrated his methods of treating otitis media, tinnitus, etc., by *Aspiration through the Meatus Externa*. Liebig (Münch. Med. Wochen.; J. L., 564) discussed the treatment of diseases of the ear by alterations of pressure in *Pneumatic Chambers*.

TESTS FOR HEARING.—Gradenigo (J. L., 581; I. O. C.) proposes a *Uniform Notation* for universal use; also a *New Optic Method of Acoumetry* (J. L., 583; I. O. C.), and Schmiegelow (J. L., 579; I. O. C.) *A New Method of Measuring the Quantitative Hearing-power by Means of Tuning-forks* (J. L., 578; I. O. C.). Knapp (J. L., 358; I. O. C.) discussed the *Functional Examination* of the human ear. Kayser (J. L., 582; I. O. C.) described some experimental investigations on *Acoustic Phenomena in Fluid Media*.

MISCELLANEOUS.—Kellat (Klin. d. St. Petersb. Aerzte December 23, 1897) described several interesting *Preparations*, including one of a *Dripping of Serous Liquid from the Ear* in a case of otitis media, only ceasing after the removal of adenoids, and Photiadès and Gabrietidès (Ann. des Mal., August, 1898; J. L., 220) a case of *Fractured Base with Deafness, Tinnitus, Vertigo, and Exophthalmos*.

DRUGS.—Halasz (J. L., 51; Wien. Klin. Rundsch., 42, 1898) finds *Hydrogen Peroxide* very useful for removing pus in both acute and chronic middle-ear suppuration. Its styptic properties are also marked.

ANATOMY.—Poltizer showed at a meeting of the Austrian Otological Society various preparations of the *Normal and Pathological Temporal Bone* (J. L., 89 and 363). Alt has removed the cortex of both temporal lobes in a dog, and found it to be quite deaf, confirming the current views as to the situation of the *auditory cortical centre* (J. L., 89).



NEW INSTRUMENTS.—Politzer (J. L., 90; Aust. Ot. Soc.) described an *Ear-trumpet* shaped like a horse's ear; and Bing at the same meeting described a modification of the *Small End of the Ordinary Ear-trumpet*. Löhnberg (J. L., 162; M. f. O., August, 1898) has devised an *Apparatus for Vibratory Massage* for use by the patient. *A Guarded Chisel for the Outer Wall of the Attic* is described by Gottlieb (J. L., 216; M. f. O., August, 1898), and *A Cutting Forceps for Aural Polypi* by Zaalberg (J. L., 275; M. f. O., October, 1898).

The following are among the WORKS THAT HAVE BEEN REVIEWED during the year 1899:

Bacon, Gorham: *A Manual of Otology*. Pp. 398. Kimpton, London.

Scheppegrell: *Electricity in Diseases of the Nose, Throat, and Ear*. Putnam, London.

Jacobson, Dr. L.: *Lehrbuch der Ohrenheilkunde, für Aerzte und Studirende*. Pp. 551. Leipzig, 1898.

De Schweinitz, G. E., and Randall, B. Alex. (editors): *An American Text-book of Diseases of the Eye, Ear, Nose and Throat*. Rebman Publishing Company, London, 1899.

Lake, Richard (compiled by): *International Directory of Laryngologists and Otologists*. Pp. 111. Rebman, London, 1899.

#### ABBREVIATIONS.

Am. Journ. of Med. Sc.—American Journal of Medical Science.

Amer. Ot. Soc.—American Otological Society.

A. of O.—Archives of Otology.

Ann. des Mal.—Annales des Maladies de l'Oreille, de la Gorge, etc.

Arch. Inter.—Archives Internationales de Laryngologie, etc.

Aust. Ot. Soc.—Austrian Otological Society.

B. L. R. A.—British Laryngological, etc., Association.

B. M. A.—British Medical Association, Portsmouth, 1899.

Boll.—Bolletino delle Malattie dell' Orecchio, etc.

Corresp. Bl. f. Schweiz. Aerzte—Corresp. Blatt für Schweizer Aerzte.

Deutsch. Med. Woch.—Deutsche Medicinische Wochenschrift.

German Scientists—Seventh Congress of German Scientists and Physicians, September, 1898.

Hung. O. and L. Soc.—Hungarian Otological and Laryngological Society.

I. O. C.—The Sixth International Otological Congress, London, 1899.

J. L.—Journal of Laryngology, Rhinology, and Otology, vol. xiv., the figures indicating the page.

L.—Lancet.

Laryn.—Laryngoscope.

Lond. Laryn. Soc.—Laryngological Society of London.

M. f. O.—Monatsschrift für Ohrenheilkunde.

Münch. Med. Woch.—Münchener Medicinische Wochenschrift.

Petersburg Med. Woch.—Petersburg Medicinische Wochenschrift.

Therap. Monats.—Therapeutische Monatsschrift.

Wien. Klin. Rund.—Wiener Klinische Rundschau.

Zeitschrift f. Ohren.—Zeitschrift für Ohrenheilkunde.