pay any longer, the office will pay the sum of £233 6s. 8d. on his reaching the age of sixty, or at his death if previous. Should he prefer it, the sum of £93 10s. will be paid to him in cash, or nearly that sum will be lent to him at interest. It must be borne in mind that the office will have run the risk of paying the £1,000 at his death during the seven years, and that it will have paid £1,000 at each death which has occurred during the seven years.

I am anxious to draw attention to this most important subject, and to have it well ventilated, with a view to something definite being done.

ON THE TREATMENT OF CHRONIC INFLAMMATORY DISEASES OF THE LARYNX.*

By JAMES SAWYER, M.B.Lond., etc.,

Physician to the Queen's Hospital, and extra-Acting Physician and Pathologist to the Children's Hospital, Birmingham.

FOR some years I have systematically used the laryngoscope in the diagnosis and treatment of all the cases of disease of the throat and upper part of the respiratory passages which have come under my notice, to which the employment of that instrument seemed applicable. My experience has been mainly in the practice of a large general hospital. It will, I am sure, be acknowledged by all who have given attention to the subject, that the efficient use of the laryngoscope, and the successful application of local remedies under its guidance, require—and it is unfortunate that such should be the case—a degree of dexterity which few have either the time or the opportunity to acquire. It is very far from my desire to exaggerate the difficulties of laryngoscopy; that art is being gradually extended and improved, and its practice is almost daily being made more easy. The use of the throat-mirror is one of those acquirements which can only be learned at considerable disadvantage in private practice; no excuse, however, can be offered for the student who passes through his hospital curriculum without at least overcoming the preliminary difficulties in the way of the employment of the laryngoscope. Of all the methods of investigating disease which have been devised or adopted during the last twenty years, laryngoscopy will be held to be the completest and the best; the completest, because as an art it is almost perfect; and the best, because it is the most useful, inasmuch as it aids as directly in the treatment of a large class of important disorders about which we were formerly literally in the dark. Much, perhaps all, of what I am about to say has been said, and better said, before. Here, in Birmingham, the laryngoscope met with early favour, and among its first and warmest advocates were my friends Dr. Russell and Mr. Furneaux Jordan; but I believe the use of the little mirror of the Hungarian physician will soon become as universal in our profession as the employment of the stethoscope, and in the hope of helping, even in ever so small a degree, to hasten the day of its general adoption, I venture to lay before you, very briefly, some of the teachings of my own experience in the treatment of certain diseases of the larynx.

For the topical treatment of the vast majority of laryngeal affections, nothing very complicated is required in the way of appliances. We need a concave reflector, about three inches and a half in diameter with a small circular hole in its centre, having a focal distance of eighteen or twenty inches, and firmly attached by a ball and socket-joint to a stout spectacle frame. We ought to have three or four laryngeal mirrors; these, made of silvered glass, should be about the size of a shilling, and soldered, at an angle of about 120 deg., to a German silver shank, which is fixed in a wooden handle. The sliding handles with screws are objectionable. For illumination, Dr. Mackenzie's rack-movement lamp is the best arrangement I am acquainted with. We must be supplied with half a dozen suitable brushes of camel's hair. I like them cut square at the end, mounted on strong aluminium wire, and bent, at a little more than a right angle, a couple of inches from the end of the brush. The handle of the brush should be of wood; and in shape it should be angular rather than cylindrical, so that we may hold it firmly and direct it with precision. Four solutions for topical application will suffice for the majority of cases. I use the following, prepared according to the *Pharmacopœia* of the Hospital for Diseases of the Throat: Solution of sulphate of copper, fifteen grains to the ounce of water; of nitrate of silver, sixty grains to the ounce; of perchloride of iron, sixty grains to the ounce; and of chloride of zinc, fifteen grains to the ounce. In each ounce of one of these "collyria" I have found it useful to include half a drachm or so of glycerine.

Chronic laryngitis is by far the commonest affection of the larynx. Although this disorder may have many causal antecedents, it is found

most generally to result, so far as I have seen, from one or more attacks of acute or subacute catarrhal laryngitis. It gives rise to much annoyance and suffering, it is very persistent, and I think I may say it can only be cured by means of topical applications; when so treated, considerable benefit in all cases, and perfect recovery in many, may be confidently expected. Chronic laryngitis is most commonly met with in adult males; because, doubtless, such persons are most exposed to the conditions which give rise to catarrh. The patient usually complains of a tickling in the throat, and sometimes a burning or aching pain is felt. The vocal phenomena are very characteristic. The voice is impaired or lost; it is generally weak, harsh, and hoarse; speaking may be painful, or accomplished only with effort; there is an almost constant desire to hawk and "hem" and clear the throat; there is always a little cough, and this is sometimes the most troublesome symptom; there is frequently a vague sense of discomfort about the throat; and in a small number of cases a little pain in swallowing is experienced. On laryngoscopic examination, the mucous membrane of the larynx is found to be reddened and thickened, and a few patches of adherent mucus are sometimes seen. The hyperæmia is usually general, but it is often partial. Perhaps the most striking condition is the change in the appearance of the vocal cords—from the pearly white of the healthy larynx to the deep red colour of chronic laryngitis. The epiglottis is deepened in colour and swollen; its arborescent vessels may appear injected, and its edges are sometimes eroded. We may frequently observe that the vocal cords do not readily and perfectly approximate when phonation is attempted, the congestion of the parts and the sub-mucous infiltration interfering with the action of the laryngeal muscles, and impeding the movements of the arytenoid cartilages. Ulceration is rarely seen; it is never extensive in simple chronic laryngitis.

There is a variety of this disease which has been called chronic glandular laryngitis, dysphonia clericorum, and (though improperly, for the glands of the larynx are not follicles) follicular laryngitis. This disorder is most frequently met with among those who use the voice to a great extent: continuous vocal exertion in the open air seems very commonly to give rise to it. This form of laryngeal disease, however, often arises without any very evident cause, and it has been thought by Trousseau and others to be due to the "herpetic diathesis". The symptoms are the same as those of a simple case of chronic laryngitis. With the laryngoscope, the enlarged orifices of the glands may be seen, about the arytenoid cartilages and at the base of the epiglottis. The vocal cords, as a rule, are pretty healthy in appearance.

In a very large proportion of cases of chronic pulmonary phthisis, some affection of the larynx is found. I am quite sure—and on this point I would lay particular stress—that the laryngoscopic appearances in the majority of cases of phthisical laryngitis are sufficiently characteristic to enable us to decide with the laryngoscope alone as to the nature of the affection. In the early stages, there is anæmia of the laryngeal mucous membrane. Afterwards, to use the words of Dr. Morell Mackenzie, "the ary-epiglottic folds look like two large, solid, pale, pyriform tumours, the large ends being against each other in the middle line." The epiglottis is usually thickened and granular; its leaf-like shape and the sharply cut appearance of its edges are lost. Sooner or later, ulceration sets in, and slowly extends. I have frequently found the earliest and deepest ulceration at the junction of the cartilaginous and ligamentous portions of the true vocal cords. The destructive lesions may progress until large portions of the cartilaginous framework of the larynx break down in *débris* or necrose *en masse*.

The subjects of syphilis are extremely liable to laryngeal disorders. We meet with different laryngeal phenomena at different periods of the constitutional disease. It may be laid down as a general rule, that the laryngeal affections of secondary syphilis are comparatively trivial, while those of the tertiary stage are always serious and often fatal. Of this I have had abundant evidence. Simple erythema of the mucous membrane of the larynx, giving rise to a little hoarseness and uneasiness in the throat, is often met with in connexion with syphilitic roseola and psoriasis; the parts appear deepened in colour and slightly swollen. The mucous membrane occasionally becomes ulcerated. Condylomata of the larynx, in my experience, are very rare. In syphilitic individuals, we often find a troublesome chronic hyperæmia of the larynx, which persists for years. In the tertiary period, the epiglottis is frequently destroyed. At that epoch of the constitutional malady, extensive ulceration of the mucous membrane of the larynx is common. The cartilages may become carious, or they may necrose in large portions; and death not unfrequently results either from assthenia or asphyxia.

Gargles are of no use whatever in the treatment of these chronic affections of the larynx. Gargles probably rarely reach beyond the posterior pillars of the fauces. In simple chronic catarrhal laryngitis, we can always do much good—we can usually effect a cure—by the

* Read before the Birmingham and Midland Counties Branch.

local application of remedies in solution by means of the laryngeal brush. So far as I have seen, we can very generally remove the chronic laryngitis; but a little weakness and huskiness of the voice nearly always remains. In these cases, I usually apply nitrate of silver or chloride of zinc. I am not sure which is the best; but, on the whole, I am inclined to prefer the nitrate. I must say, however, that it will generally be found to cause more smarting and uneasiness than the chloride of zinc. At first, until very decided improvement be manifested, the applications should be made daily; afterwards, every other day; and then once or twice a week, until the cure is effected.

Chronic glandular laryngitis will be found a more tedious disorder to deal with; but we may do much good by restricting vocal exertion, and by the topical application of nitrate of silver or perchloride of iron in solution. In phthisical laryngitis, a weak solution of nitrate of silver will generally be found the best local remedy. The disease may be retarded and alleviated, but never cured. Of course, the hygienic, medicinal, and general treatment suitable for pulmonary consumption must not be neglected. In the treatment of syphilitic affections of the larynx, the constitutional disease must never be forgotten. I have the fullest faith in mercury. In the earlier stages of the malady, it is always best to bring the patient gently under the influence of that valuable drug. In the later phases of the disorder, iodide of potassium, in doses of twenty grains three times a day, will often act like a charm. When the laryngeal disease is slight, a solution of sulphate of copper is the best local application; when there is much ulceration, I would recommend the use of a very strong solution of nitrate of silver. The solid nitrate may be applied to ulcers in the larynx. For this purpose, a little of the caustic must be fused on the tip of a probe which has been suitably bent; and in this way nitrate of silver may be safely introduced into the larynx by the aid of the laryngoscope.

In the treatment of laryngeal diseases, much benefit may be derived from "inhalations". Medicated steam-inhalations are very valuable; for these, I would recommend the eclectic inhaler of Mackenzie. Inhalations of atomised fluids are of great utility; and for these we have Siegle's apparatus, Clark's hand-ball spray-producer, and other contrivances. Of inhalation and other useful methods and adjuncts in the treatment of laryngeal disease, I fully recognise the value; but my object in this paper has been to bring forward in outline an account of the chronic inflammatory affections of the larynx, and to give my testimony to the great advantage to be derived in their treatment from the systematic topical application of remedies in solution by the aid of the laryngoscope.

THERAPEUTIC MEMORANDA.

OXIDE OF ZINC IN INFANTILE DIARRHŒA.

IN the last number of the JOURNAL is a quoted paragraph, recommending chalk and kino; I can speak still more highly of oxide of zinc. This use of it is not generally known or mentioned, but has been referred to by Dr. Waring-Curran (*Lancet*, October 1868), and specially treated of by Dr. Brakenridge, who has well pointed out (in the *Medical Times and Gazette*, February 15th, 1873) that this oxide has tonic and antispasmodic as well as astringent properties—a combination in a non-irritant substance exactly suited to many cases of the malady referred to. Chalk is good, but sometimes irritates, and sometimes fails. Acids are good, but sometimes gripe, and sometimes injure teeth. Opium should be absolutely forbidden for infants that cannot be closely watched. Bismuth is very good; and zinc resembles it, with better nerve-tonic power (a minor point, but I observe the quoted price of carbonate of bismuth to be 13s. per lb.; of oxide of zinc (Hubbuck's) 1s. 4d.). Zinc oxide will give us, in many cases, the maximum of good with least liability to harm—an advantage to be desired, especially in out-patient and distant cases. Without implying that it is always the best remedy, I may say that it has—suitable diet being premised—given me excellent results in all the varieties of infantile diarrhœa: notably in those complicating nerve troubles and whooping-cough; it is not to be forgotten in the profuse sweating of rachitis. The dose may be one grain for any age under two years, and may be well given with a little syrup, mucilage, and dill-water three or four times daily—not on an empty stomach, or a larger dose may nauseate.

EDWARD MACKEY, M.B.,
Physician to the Children's Hospital, Birmingham.

EAST AND WEST FLEGG.—Mr. J. T. Waller has been appointed Health Officer for three years, at a salary of £80 *per annum*. Population, 9,500; area, 26,000 acres,

BRITISH MEDICAL ASSOCIATION: SUBSCRIPTIONS FOR 1873.

SUBSCRIPTIONS to the Association for 1873 became due on January 1st. Members of Branches are requested to pay the same to their respective Secretaries. Members of the Association not belonging to Branches are requested to forward their remittances to Mr. FRANCIS FOWKE, General Secretary, 37, Great Queen Street, London, W.C.

BRITISH MEDICAL JOURNAL.

SATURDAY, JULY 12TH, 1873.

A SEMI-ANNUAL RETROSPECT.

THE year of the Association dates from its annual meetings; and it is in commencing the volume of this half-yearly period that we find the most appropriate occasion for reviewing our position, and for inquiring how the Association progresses in carrying out its functions and in maintaining its status.

One great function of the Association is to elicit, to foster, and to diffuse scientific thought and practice throughout the profession. The Branch meetings bring together practitioners in the remotest parts of the country; they encourage, and indeed almost compel, the busiest of them to collate their experience, to note it down, and to record it. Men who are locally known to have large means of experience are called upon by the secretaries and by the voice of the members of the Branch to prepare papers: taking their turn of office, they feel bound to exert themselves for the scientific instruction of their fellows, and stores of information are elicited from men who would never otherwise have been induced to put pen to paper.

For the publication of their papers they have no unworthy audience; they have more than five thousand weekly readers in the three kingdoms—a medical audience such as no authors could ever before thus secure for their papers.

It is interesting to note how any new view or interesting subject presented to this audience is instantly, as it were, analysed, torn to pieces, and reconstructed. Thus this year the subject of uterine medication, once started by Dr. Matthews Duncan of Edinburgh, has been debated most minutely and exhaustively in our pages by Henry Bennet, Robert Barnes, Lombe Athill of Dublin, Graily Hewitt, Bassett of Birmingham, Heywood Smith, and several others. The subject of the most appropriate kind of anæsthetic, and its administration, started in our editorial columns, was discussed in every aspect by Jonathan Hutchinson, Clover, Green of Bristol, Morgan of Dublin, Annandale of Edinburgh, McGill of Leeds, Skinner of Liverpool, Jones and Warrington Haward of London, Marshall of Bristol, and Lawson Tait of Birmingham; our American brethren joining in the debate, Joy Jeffries, Packard, and Weller of Boston, forward their contributions to this discussion. So much for the scientific development of medicine, in which the Association is at this moment, and has during the year, taken a more active part than ever during its existence. Of its activity in State Medicine, the contributions of Rumsey of Cheltenham, Dyke of Merthyr Tydfil, Clegg of Epsom, and others, bear ample witness.

On the subject of the political and social action of the Association during the year, we may point out that, in respect to