Lycananche Laryngea.

Disease may invade many parts of the human body without interfering materially with the comfort, or causing danger to the life of the patient, but there are others so delicately constructed, and so sensitively organized that the slightest abnormal action instantly produces great pain not unfrequently accompanied with imminent peril. Excessive inflammation is borne here with safety; slight congestion there causes instant death.

In few organs does disease exert greater misery, or advance so rapidly to a fatal termination as in the larynx. It is not because the larynx is in itself of vital importance or of delicate organization, but forming the entrance to the air passages, its obstruction interferes with the free play of respiration; its total occlusion can be borne only for a short time without a fatal result, if relief...
is not speedily affected; again disease affecting it in a less acute form deprives the subject of the power of speech, renders him often unfit for the duties of life, and makes intercourse with his fellow men undesirable and difficult.

Sometimes disease in this organ, when a destructive process in its interior is advancing, goes on slowly to a termination, as others the intrusion of a foreign body causes instant death. Examples of the former kind are of daily occurrence; a case of the latter was a short time ago brought under my notice, a child was quietly eating a piece of bread, a small piece of it entered the windpipe, and produced almost immediate death.

Considering the interest with which laryngeal affections are in general regarded it is somewhat remarkable that comparatively little has been written on the subject by medical men. When we see a disease armed with such weapons, when we consider that the most important period of life is peculiarly liable to it, remembering that some illustrious names have been
included in the number of its victims, we are surprised that it has not been often and more minutely investigated. This is the more astonishing since we know that the affection is not one of those where the Physician must always look on suffering and approaching death without the hope of affording relief. But that on the contrary, its treatment promptly and wisely directed is often safe, effectual and per-
manent.
General Anatomy

Performing an important respiratory function and constituting the chief organ of voice, this complicated structure is one of those parts equally interesting, whether Anatomically or Physiologically considered; but to treat of the larynx under these heads would be apart from the subject of this paper; a mere sketch of its anatomy will not be out of place.

The importance of the larynx is evinced by its being always complete in form at birth, every little change taking place in it for many years. Previous to puberty it is equally developed and similar in constitution in both sexes, but after this period the larynx of the male undergoes marked changes, whilst in the female it is little altered. In the male the cartilages enlarge, the cords become lengthened and the aperture is widened. In the female such an alteration is scarcely appreciable. The dimensions of this cavity do not vary in either sex, with the size or development of the individual as many other organs do.
The larynx extends from the base of the tongue to the first tracheal ring. It commences at the most anterior of the seven openings leading from the pharynx, is situated between the great vessels of the neck which diverge from each other to give it freedom. It is a cartilaginous cavity capable of being completely closed above, but always open inferiorly when in a healthy condition; in form it is analogous to that of a hollow truncated cone, the base of which is turned upwards, the summit downwards. The upper expanded part is formed by the thyroid cartilage, the lower by the more regular cricoid gradually adapting itself to the shape of the trachea. Other two cartilages enter into the skeleton of the larynx, these with muscles and membranes complete the framework for the protection of the vocal organs. The interior is divided into two parts by the prominence of the chordae vocales, the portion above the constriction contains the structures essential to voice, the due regulation of breathing, the portion below the prominence is un-complicated, having only a few muscles.

Questions
depressions, or being merely the dilated part of the trachea. The glottis or superior orifice is that part of the larynx which is above the cords, i.e., the opening between the arytenoid cartilages and the investing membranes; the aperture is triangular, broad anteriorly and narrow behind. It is bounded in front by the epiglottis, posteriorly by the mixed fibres of the arytenoid muscles, on either side by the folds of mucous membrane passing between the side of the epiglottis and the apex of the arytenoid cartilages. Tending in it the minute prominence of the cuneiform cartilages, below by the cords, while above, the aperture is either free or closed according to the state of the epiglottis. The epiglottis is a firm cartilaginous valve guarding the entrance of the larynx; when not acting its position is erect. Its free portion is oval and attached by a peduncle to the angle between the alae of the thyroid cartilage. Chorda vocales there are four in number, named respectively true and false; they are placed the one above the other stretching from the arytenoid body to the angle of the thyroid cartilage. The superior, or false cord, merely
of a fold of the mucous membrane passing from the external edge of the base of the arytenoid body to the angle in the cartilage. The inferior, or true cords are sharply marked & consist of elastic tissue enclosed in a fold of mucous membrane opposed to the base of the anterior edge of the arytenoid cartilage to the thyroid angle. The aperture left by these cords is the rima glottidis. Immediately above the true vocal cords lie the ventricles (pouches which project upward) between the false cords & the base of the thyroid cartilage. One of the chief uses of these pouches is apparently to allow a free vibration to the vocal cords.

The mucous membrane of the larynx is continuous with that of the pharynx, the interior of the cavity being accurately lined by this membrane which fits with the greatest nicety into every depression. Such an accurate lining is highly requisite so that the voice may not be interfered with. This membrane is very thin, smooth & delicate; it is of a pale rose color, but less blanched than either in the pharynx or trachea, protected by a glary mucous secreted.
stretched by the mucous glands on its surface. This membrane is connected to the bone & cartilage by a reticulated submucous tissue, which however is not abundant, is very compact where it unites the mucous membrane to the adjacent structures; this tissue is developed chiefly near the epiglottic & vocal cords to facilitate their easy motion.

The mucous follicles besides being scattered over the pharynx are also abundant in the mucous tissue of the larynx; they are very plentiful near the root of the epiglottis, where their openings can be distinctly observed. They are also seen in considerable numbers in the tissue which passes to & from the various cartilages. Mucous glands also abound in the larynx: they are prominent on the epiglottis where the ducts open directly on the laryngeal surface, they occur both singly; disseminated from a plentiful secretion upon the interior of the cavity. These glands are also situated upon the vocal cords and serve by their secretion to lubricate their surface.
Measurements of larynx.

Antero-posterior diameter at false vocal cords found greatest

13

At true vocal cords

11

Transverse diameter at false cords is suspected in consequence of their laxity

11 1/2

Transverse diameter at true cords

8 1/2

Without stretching the average is:

False

8 1/2

True

6

Lower down opposite ones thyroid membrane

Antero-posterior diameter transverse are near alike, being

8

The length of the opening at the rima may be considered about eight lines

as the space between the arytenoid cartilages is filled up by the small muscles there.

Antero-posterior transverse diameters of rima.
Acute Laryngitis

The majority of those affections which come under the care of the physician advance so slowly, that it is often of small moment whether they are at once discovered or accurately diagnosed. They may require remedies which act so tardily and imperceptibly that either delay or interruption is of little consequence. In such cases there is abundant opportunity to consider the disease and to select a remedy; such diseases are happily the most numerous. But again, there are others, which require an intimate acquaintance with their symptoms as well as a perfect knowledge of their cure; diseases which must be dealt with at a moments warning, and checked with the utmost promptitude at the outset of their attack; they allow little time either to consider or consult, even defy all control and tend to abate those measures which at an earlier period might have arrested their progress. Acute inflammation of the larynx is of this class. The sudden
of its appearance, of the rapidity with which it destroys life make it as one of the most formidable maladies. —

The local inflammations of the larynx differ widely in kind and degree; some of these are in themselves trifling in importance and seldom require medical treatment; but they are not on this account to be wholly overlooked, as they are frequently the forerunners of a serious disease. The simplest affection of this structure is attended with hoarseness, coughing often upon coryzae tonsillar; or it may be one of the train of symptoms attendant on some eruptive fevers. Coryzae tonsillar sometimes extends by continuity to the lining mem-
brane of the larynx, or instead of spreading from there, it may proceed upwards to partake of the nature of the inflammation in bronchitis, or of that of the trachea in cough.

Acute laryngitis properly so called is, I believe, very often an antecedent affection; it is apt to occur in those persons whose “weak part” is the throat or tonsils. Frequently it is induced by exposure to cold, or by suffering
any sudden variation of temperature. Slight sore throat is generally the first thing complained of, the tongue is redder than usual, the act of swallowing is attended with some difficulty, but there is a restless, nervous anxiety too great, to be accounted for, by the slight affection of the throat; more decided and alarming symptoms soon appear: the voice becomes altered, from slight hoarseness to total dysphonia, the respiration becomes affected, whilst frequently no physical sign can disclose ailment in the chest. There is a short, smoky, pleuritic cough unattended by expectoration, the inspirations are prolonged and whistling. The patient feels pain in the neck aggravated on pressure, if the humerus brachii is referred to as its seat, the pulse shows the existence of inflammatory fever, the skin is hot & dry, the countenance flushed, breath frequent: the tongue is swollen. Great irritation is produced on endeavouring to swallow fluids, which enter the larynx, the epiglottis, from its inflamed condition, being unfit to guard the entrance. If this arrests:

the malady proceeds further unchecked, the patient's dispirits becomes agonizing; his countenance is pale ghastly, the lips and This...
protruded from their sockets; respiration is hurried exceedingly difficult & the pulse is weak and intermitting, while the surface of the body be comes cold. The patient desires air to be admitted from every possible quarter, he sets up in bed sprits every muscle in action which can assist respiration, if the inflammation proceeds, gas means are employed to admit air into the lungs & all the horrible symptoms, delirium, ensues, strangulation follows soon closes the scene.

The conditions described above became aggravated increased in intensity at different stages. But all these symptoms do not exist in every case of laryngitis, only a very few may be present, but these are generally characteristic Dr. Cheyne's definition of laryngitis in its acute form is the following: "Pain in larynx not very acute unless on pressure, some degree of fullness externally & change in the sound of voice, difficulty respiration but slow rather than short, an altered sometimes Stridulous cough, fits of suffocation coughing all these symptoms which arise from obstructed circulation in the lungs." I subjoin a well marked case.
case from the work of Mr. Porter. "Mr. Kenny aged 47, on the evening before admission, he had a severe rigor, which was followed by one throat. He went to bed, but awoke about the middle of the night with great difficulty of breathing, attended by a feeble pulse, cough, and inability to swallow. On admission, the feeble sound of the respiration was easily recognizable, the voice was nearly lost; there was cough with slight expectoration, and on an attempt to swallow liquids they were forcibly rejected by the nose. Pressure on the larynx recurred, led with some pain. He was ordered by Dr. Graves to take thirty ounces of blood from the arm. To take two grains of tinctured antimony, in solution, every hour, which at first appeared to produce some relief; but in the evening the symptoms became so exaggerated as to render an operation necessary, and Mr. Macnamara was summoned to take charge of the case. He was found in the evening with his respiration loud, stimulous, performed with the utmost difficulty, pulse very quick; the extremities cold, and the upper part of the body covered with a clammy sweat. On inquiring the finger into the splanes, the epiglottis was felt erect, pulsy, swollen to the size of a large walnut. The operation of tracheotomy was performed in the name
manner; there was no hemorrhage; but the termination of the operation the patient experienced so much relief that he fell into a deep refreshing sleep. It is unnecessary to trace the case further; a few days purification was carried on thro' the natural channel; the patient was soon restored to perfect health. This case illustrates admirably the symptoms of the disease, as well as the efficacy of well-chosen remedics.

Authors speak of the disease under our consideration as of rare occurrence; this is fortunate, since its mortality is very great. I have been able to meet with very few cases of the affection in the journals of the Edinburgh Royal Infirmary, having three for a great majority have proved fatal. In a table given by Dr. Byland comprising in all twenty eight cases, eighteen died. Even recovered, seven this Dr. Byland speaks, is much too favorable a view of the mortality of the affection. Death generally occurs within two or three days, but if the violence of the attack does not abate before this time, life is rarely prolonged even to this period. It often proves fatal in thirty six hours or even less; Dr. Lawrence relates the case of two young men who
retired to bed together in perfect health in who were found dead in the morning of this disease. The affection is said to occur more frequently in the male than in the female sex; this is owing probably to the greater liability of the former to be exposed to the exciting causes of the disease. Acute laryngitis is exceedingly rare before puberty; it occurs chiefly in adult age and advanced life. Dr. Ryland's table just referred to, shows that the disease is most frequent between thirty-five and seventy years of age. No case is given in a patient under seventeen.

An accurate diagnosis in this malady is of the highest degree important, if the earlier its features are observed, the greater is the hope of averting the subsequent danger. As these symptoms in some instances distinctive, after a certain period has elapsed, the difficulty of diagnosis exists only at the very outset, before any of the urgent symptoms have appeared. But it will be proper to remember that a few indistinct constrictions of the air passages without resemble chief laryngitis. Acute of the larynx may occasion symptoms exceedingly like those of laryngitis; these may be the dyspnea, the
fever, cough, pain referred to the larynx, and the existence of the abscess may be obscure, but then again, there is greater pain here than in laryngitis; there is greater difficulty in opening the mouth, because longer duration of the local pain. In case of asthma, the difficulty of respiration is often as great as in laryngitis; the breathing in both diseases is unnatural, but inspiration in the two cases is quite of a different character. Severe cases ofazine

the tonsils produce symptoms very like those of acute
azine. Further, their symptoms generally differ, still they might exist together. Hence the amount of danger. This complication would be of small consequence in so far as regards treatment, I would advise treatment in either disease to open the trachea if respiration were impeded. Anemia of the air, has often produced symptoms like those of laryngitis, by pressing on the air tube causing the pain esthildus breathing. But this mistake could scarcely occur with the improved means of diagnosis at the command of the physician in the present day. Croup may be confounded in many respects with the disease under consideration. In diagnosing between them, the chief affair will be
of material assistance, together with the cougher of the throat, the peculiar tracheal inspiration. Lastly spasmodic shrinking of the glottis will produce symptoms similar in many respects to laryngeal disease. There is a case given by Dr. Laurence in the book of the late Dr. Dent in Transactions which exhibits admirably the resemblance between the two diseases. It might have been noted as a well marked example of acute inflammation of the larynx, which nevertheles presented not a single marked appearance of the affection. A man aged 50 was admitted into St. Bartholomew's Hospital who was supposed to have suffered much exposure to cold. He became very hoarse, affected with considerable difficulty of breathing accompanied with a peculiar voice during inspiration: he had no pain in the chest, seemed to draw in a full quantity of air, although there seemed some great obstacle to its entrance, obliging him to sit up in bed employing all the auxiliary powers of inspiration. His opened mouth, elevated shoulders, spasmodic struggle marked the narrowness of the passage for the air; while the cold pallid skin, the marble, feebly rapid pulse indicated clearly the debilitating effects of imperfect inspiration. The
voice was much affected, but he could swallow without difficulty; there was no pain on pressure nor visible affection of the throat. The patient became worse, sat with the mouth open, gasping for breath, the eyes welling, the skin covered with a clammy sweat. Tracheotomy was performed with temporary relief, but the patient died shortly afterwards. The post-mortal appearances were:—Carcinoma vocalis, accuti laryngitis. Perfectly healthy, the membranes clean as well as the lining of the trachea free from every appearance of inflammation. The rima glottidis normal dimensions.

It is curious to observe that absence of the liver may induce all the symptoms of laryngitis, while dissection fails to disclose anything but healthy structure.

Death in syphilitic larynx generally takes place from cerebral affection. Although the respiration is first obstructed, it does not seem the immediate cause of death; but more probably the failure of the vital strength arises from different muscular energy by a failure of muscular power. The post-mortem appearances are very uniform.
uniform; the whole of the interior of the larynx may be inflamed, or only a very insignificant spot of the mucous surface; small inflamed patches are often found; the epiglottis is generally thickened by submucous infiltration. It stands erect unyielding, the edges of the superior orifice of the larynx are variously inflamed and infiltrated, so as even to shut up the entrance. The opening leading to the windpipe is at all times too narrow that slight thickening makes a great difference in the dimensions of the orifice. The upper parts are most frequently diseased, we seldom find ulceration in the acute stage of laryngitis although small ulcers are occasionally seen about the lips of the glottis. Dr. Cheyne mentions a case where the mucous membrane presented the appearance of a thin layer of cartilage.

The imminent danger which attends this disease, & the dreadful suffering both bodily, mental, which the patient endures, under an effectual remedy is invaluable, it means of relief although of a temporary kind are to be anxious fought for. These remedies are as yet unhappily few, from the comparative rarity of the disease.
experience teaches us little, regarding their efficacy, but I am satisfied that enough has been done of late years to warrant some decided measures, which if properly directed would present us with statistics less deadly and more encouraging.

As in every acute inflammation, bloodletting has been long a standard remedy, in few diseases has it been carried to a larger extent than in that under consideration. This remedy is doubtless of great value when employed at the proper time; to be effective it must be adopted at an early stage of the disease when the fever is high & the pulse being rapid; the bleeding should be carried so far as to make a decided effect upon the heart action, but it is sometimes beneficial when used in smaller quantities, by unloading the lungs, lessening the intolerable sense of suspending death, thus far independently of checking the inflammatory action; it is beneficial to alleviate suffering. In most of the recorded cases of acute erysipscalegyzaedepresion has been carried, almost indiscriminately, to a prodigious extent; in a few of these the disease seems to have been repressed
by its means alone, but in for the greater pro-
portion, the disease has advanced often little
relieved, and a few seem to have been bled to
death. Local bleeding, by leeches, or by scarification
over the larynx is, I think very frequent. It
increases the local irritation, seriously interferes
with the other remedies which may probably be
required. The period for bloodletting is soon
over, no good effect, but the contrary can arise
from it, during the second stage of the disease.
When the patient becomes cool, the face pale, the lips
blue, the pulse small, feeble, when the powers
of life are becoming exhausted, the extraction of
of blood would just hasten the fatal end. Our
next remedy when bloodletting proves ineffectual is
drawn from the surgeon; the management of acute
laryngitis comes within his province. Dr Lawrence
in writing upon the subject, says "Experience has
shown that medical treatment is almost entirely
inefficacious; at least the most active means have
produced no relief in the instances which have
fallen under my own observation."

We have seen that asphyxia is
the primary cause of danger here; it is not from
any
any incapability of the lungs to receive the air, or to circulate the blood, but from the air being denied admission from obstruction in the passages. If respiration could be carried on through any other channel, the disease under consideration would be comparatively trivial in its consequence.

The rational mode of treatment, viz., by admitting air into the respiratory tube below the seat of obstruction has been known to some extent adopted from the earliest periods of medical practice. Unhappily, the success has not equalled the rationality of the proposal; but I am convinced that it is not the remedy itself, but its misapplication, that has brought it into discredit. Bronchotomy & Tracheotomy have too long been considered as a "desperate resort" in lung cases. They have generally been adopted just as the patient was becoming asphyxiated, or after the system was unable to recover from the previous exhaustion, when the lungs had begun to exhibit symptoms of disorder, or when the body has been weakened by excessive loss of blood.

If the operation in question was formidable either during its performance or in its after
after consequences, the tumorous adhesion of the remedy would be in every respect unsuitable; but the operation is admitted to be free from danger if performed with ordinary caution. It is little more than a simple wound, attended with little loss of blood. One of Lawrence's conclusions on the subject is that the operation is free from danger, has many times been successfully performed, and in any instance produced unpleasant consequence. The latter part of this statement is rather unqualified, but there can be no doubt, that it will be found in most instances correct.

To decide upon the proper time for resorting to this operation is of very great importance. The question has been much disputed, but most men now agree that it should be early performed. To be effectual it must be done at the outset of the disorder; some prefer to do it so soon as the symptoms of the disease are distinctly recognised, others as soon as the breathing becomes at all laboured, or any feeling of suffocation is experienced; all agree that it ought not to be delayed till the patient is sinking. Mr. Louis' opinion on the matter is: "La pneumothorax nous paraît être..."
"The first recourse, la douleur, la pansement, et les autres moyens conseillés pour diminuer la tuméfaction des parties enflammées, pour laisser d'enlever les obstacles qui s'opposent aux libre passage de l'air dans les poumons, ne peuvent pas avoir un effet assez prompt, et devront être pris pour faire un temps infiniment supérieur.

Delay how it is full of peril, knowing the energy of the insulber, at least some may have allowed it to overstep control. Bronchectomy as both the radical, palliative treatment, we cannot expect always to prevent a fatal issue, but we can always be assured that at least this operation will relieve the agonizing sufferings of the patient and make death less terrible.

There are some circumstances which are said to contraindicate the operation of bronchectomy, such as extensive disease of the lung; this would of course be a most unfortunate case; in such cases, but nothing but the judgment of the physician can determine the case."
Chronic Laryngitis

There are so many varieties of chronic laryngitis that I cannot pretend to give a dissertation upon all its forms, the mode of distinguishing them, or the numerous causes which induce the affection. To enter into such detail, however interesting that might be, would far exceed the limits of this paper; I will therefore only give a few cases of the disease, from the two private journals, which will illustrate better its symptoms, nature, and treatment.

Chronic laryngitis is applied to a tubercular inflammatory action, affecting chiefly the mucous lining of the larynx and trachea. It has been divided into two great heads, according as the mucous, or submucous lining, or the cartilages of the larynx are the seat of the disease. A knowledge of the situation of the affection, whether in the mucous, or other structures, is a matter of great consideration, seeing that in the one the similarity is of a far more unfavorable nature than in the other. The distinguishing characteristic of the disease is alteration of voice, which may undergo...
endless variations, both in degree of permanent.

Case I.

Jane Smith, age 31. Admitted Jan. 1852. Lumbago. The patient has lately been in poor circumstances, but is of temperate habits. Five weeks ago after exposure to cold, she was seized with pain in upper part of the chest, tightness over the larynx, some difficulty in swallowing. Six years ago she had a similar attack. On admission there is pain in front of the chest, over the larynx or pressure; the breathing is labored. The voice gone; respiration very difficult, of the quavering laryngeal character; to cough, the voice is entirely absent. Pulse 100 per min. Other parts of the respiratory system free from disease. Ammonia 314 once applied to the larynx which produced relief both to the pain and the dyspnoea. Pulse to upper part of chest.

Jan. 6. Much relieved by the inhale, the breathing is easier, less noisy; the voice has in a very slight degree returned. Habeas 1/4 of Hyoscyan. at Col. 1/8 the former dose.

Jan. 7. Pain returned over larynx, chest, but no difficulty of breathing. A small ulcer is seen on examination, on right side of the junci. Ulcer is not movable, but feels rough and rough. Continue Col. 1/8. The snoring respiration is still audible except on deep inspiration.
Jan't 10th. Voice somewhat improved. Soreness of ear.
Jan't 12th. Voice much improved, much clearer; no pain nor
soreness. Has the decided mercurial fever.
This patient recovered from the time I was poor,
dissatisfied cured.

The cause of the attack in this
case was evidently undue exposure. The patient seems to
have been predisposed to the disease in consequence of a
former attack. The complete aphonia here observed is
remarkable; from its occurring so quickly and fleeing
afterwards, it is likely that the cartilages were unaffected,
that there was submucous infiltration for the most
part present. The application of leeches was attended
with much relief. In very chronic stages of the affection,
benefit from leeches might scarcely be expected, but now:
I therefore think it probable that the local bleeding is always
attended with much relief. In the first variation, that
mercury passed the system, there was improvement in
the voice, which from this time gradually improved, but
I am inclined to think that the continuance of this
remedy, after the production of its physiological effect,
in a delicate female was imprudent. Here was a
very important agent in this case omitted, viz. the local
application
application of nitrate of silver; I think this treatment was indicated here, doubtless would have hastened recovery.

Case II.

Helen Brown, age 25, from Missouri, Admitted July 1852. Stated that her complaint began 11 months ago; she was aware of having been more than usually exposed. One morning after much exercise of the voice during her occupation, she became suddenly extremely hoarse. That afternoon there commenced a short dry cough, with a peculiar dryness in the lungs, but without much expectoration; at this period of the disease, the hoarse sleep was not always equal. Last July she was admitted into the Hospital ward. At this time there was slight noise in the abdomen, & the respiration in the lungs was of very dry character; there was some pain in lungs but no difficulty in swallowing. All the respiration was much relieved by the local application of the nitrate of silver. Five months ago on resuming her labors the voice began to fail again, very soon the cough increased, & the hoarseness returned with all its former intensity, so much so indeed that the voice could not speak even a whisper, the worst dysphonia was so bad that the lay in bed...
with difficulty, I found no relief except sitting up \+
resting the head upon the hands. At present
the voice is very low, hollow, flat, husky, but she
can make herself heard pretty well in a low whisper.
There is a short cough accompanied by considerable
expectoration of phlegm, but there is slight pain
in larynx, or distressing sense of tightness there. There
is great depression of spirits, sleeps well. Appetite
good. Otherwise healthy.

The cause of the disease in
this case was, in every probability, long disordered use
of the voice. The attack was very sudden. It often
occur temporary aphonia induced by long con-
stant reading aloud &c., but this case of aphonia
was experienced on the morning after the exercise.
Every one has remarked the frequent harshness of
voice, so prevalent, among fishermen, coal heavers &c.,
the dissonance of tone, & the absence of the high
notes are more observable than any great indistinct
voices of voice. In such cases, the structures instantly
become relaxed, from some excitement, the cords
cannot be tightly stretched, thought sufficiently
near one another to produce the high tones.

In the first instance, the
case before us, was most probably a function of the disease for some time, alteration commenced.

Perhaps to the time of her present admission, this patient has undergone little treatment. The greatest relief was experienced from the local application of the substance of silver. After each application, she felt relieved both from the cough and thirstness. The report of the case, regarding this case, "in a case of New York disease, it was given through the operation of the mouth of silver, three times through the same field of view." The patient states that when silver was passed the second time, the sensations produced were more peculiar than those experienced on any other occasion. The local application of silver in this disease is of eminent service, but that the substance reaches the diseased part when deeply seated in the larynx is a matter of great doubt. There can be no doubt that this cause is often serviceable when placed near the vicinity of the diseased action. Sometimes (often) noticed this in ulceration of the throat, where only one part of the larynx was touched with the whole syringe, yet the whole neighborhood pain...
seemed to be equally benefited by the application of this in time, the cure of the affection taken below the penna will be accounted for, without coming to the conclusion that the o蛉e passes. Since her present admission, this patient has not been treated by any direct application. Leeches o蛉e have been applied, but with the most transient relief. The system has also been brought under the action of mercury, while in this condition the voice greatly improved, but as the effects of the drug passed off, the hoarseess returned.

Case III.

Ellen Fennish admitted June 1871. This patient in April last, while recovering from an attack of influenza, was just under mercurial treatment, while under its influence she incontinent exposed herself to cold. She was seized with general weakness, pain swelling of the salivary glands, the gums without became painful, tortured, this was accompanied by profuse salivation. The voice became exceedingly hoarse, she spoke with difficulty in a low whisper. Great aphonia occurred with three hours of the time when she had perfect use of the voice. This patient's throat and jaw were much
much exacerbated on admission to the Hospital, the voice was reduced to a mere whisper, and any attempts to speak in a loud tone were accompanied with great pain in the larynx.

The only treatment here was local applications. Inhale opium 3/ij to 3/ij of water. The cause here was evidently exposure to cold during the existence of the febrile state, usually appearing as the physiological effects of mercury appear. The danger of suffering cold during this state is well known, exposure often causing the effects of mercury to exhibit themselves in their most violent form. When the mercurial eunism is provoking the system the excessive weakness or depressed state of the organs of the system which is little able to resist any injurious influence, and the reaction is sometimes ever fatal. The treatment did not go far in this case, as the patient was dismissed unwell. Warmth combined with fresh air, together with local applications, would I suppose have been the proper cause.

Case II.

Margaret Lemon, aged 25, washerwoman, as int.  
admitted January 14, 1852. Stakes that five weeks before, she contracted typhus from her husband, that she had a large chance, for which she was treated by mercury. She seems to have been fully salivated, and, indeed, on admission the gums were still painful, of a dull red hue, very swollen. A week before admission after exposure to cold and wet, she had violent rigors, with all the usual symptoms of a feverish attack, accompanied by great pain in the region of the larynx, cough, tolerable difficulty in swallowing; shortly afterwards her voice became husky, then she had light cough at first unattended by expectoration. These symptoms increased in intensity and continued up to the date of admission, when the voice was reduced to a whisper; deglutition, even of liquid ingesta, very painful, when the larynx is pressed against the spinal column very acute pain is produced; purpose expectoration spurs prominent matter had also come on. On examination of the interior of the mouth, the back of the pharynx is found covered by small blanched ulcers, the mucous membrane generally is deeply congested, to a deep livid hue. There is this time febrile
excitement. The respiratory mucous membrane
healthy, with the exception of being a little rough
under the left clavicle. Careful examination of the
chest elicited nothing else unusual.

She was ordered an apomorphine, 1-6 leeches, to
be applied over the larynx; this gave very marked
relief. The raw dameness, the roughness
clasped in a solution of nitrate of silver (3/4 to the once
of water) was then applied, at first to the upper
part of the pharynx & the fauces, afterwards to
the larynx. Under this treatment the coughs sep-erated speedily, debility became easy, the pain
of the larynx was completely removed, but only
slight amelioration of the voice took place. The
patient continued in the hospital till the 27th
of February, when she was dismissed perfectly
restored to health, with the exception of the
voice which she continued husky, whispering,
though considerably better than on admission.

When syphilis parades the
system, mercury has been abused as an antidote,
there is produced a fruitful source of disease; it
is the cause of more grave obstructions or disturbing
than chronic laryngitis. Syphilis alone in the
secondary form is very apt to affect the throat larynx, but the liability is far greater when the herpetic-herpetic poison has been joined. The herpetic-herpetic ulcer (as it was in the case just related) is very characteristic; it is quite different, either from that formed in the median attacks of chronic laryngitis, or in the follicular disease. The ulcer is deeply excavated of a dirty greyish appearance, the edges are thick and regularly eaten out, & the skin surrounding it for some distance as of a dark copper line; it has a great tendency also to spread to the neighboring parts as well as to deepen. When chronic laryngitis can be traced to this source, it may almost be considered incurable, the pain sometimes may disappear more quickly by right treatment, but the voice remains hoarse. The local application of nitrate of silver is strongly indicated, a very few applications act almost like a charm, altering not only the character and condition of the ulcer, but also the surrounding tissues very soon a healthy appearance. Diet, regimen & the iodide of potassium are not to be neglected.

Case V.

Robert Wilson admitted July 1850. On admission

This
this patient complained of pain in the back part of the throat, along with difficulty in swallowing. He had a tickling cough which he stated proceeded from the back part of the throat; the expectorated mucus was putrid in nature. The voice had a peculiar huskiness, very attempt to speak alone gave pain. These symptoms commenced about four months ago, after exposure to cold, but under repeated blisters they had almost disappeared until about a week ago, they returned with unusual severity. On inspection of the throat nothing abnormal could be seen, but when the finger was introduced a peculiar roughness was felt in the glottis, also upon the epiglottis. The other systems were reported healthy.

July 20. Ice lumps were applied over the larynx. The parts were fomented with hot water. All the following days cold water was inhaled. This gave some ease. July 21. Silver nitrate was applied by the sponge to the upper part of the larynx; this eased the pain. Facilitated respiration. Auyt. 1. Light dulness on percussion at apex. 11th lungs, some expectorating sputum is heard. Auyt. 7. Diarrhoea to-day for the first time, it is very loose instead of the ordinary treatment. Other symptoms the
Jane. Took cold liver oil. Aug. 18. Died very suddenly
after spitting a quantity of foamy blood; the respiration
was attended by no cough or dyspnoea.

On the post mortem exam:
: motion of this case the lungs were found involved
: treatd with milky tubercles; there were extensive
: adhesions of the bronchi were filled with blood. The
: large trachea were filled with a large conglomular
:ymphatic was thickened with it & the other parts
: of the interior of the larynx were filled with tubercles.
: there were also both severe abrasion.

I give this case to show,
that chronic laryngitis may effectually act on other
important lesions. Here is a case of extensive tubercular
deposits thro the whole of the respiratory passages
yet the laryngeal affection is the only thing com-
plainted of. The difficulty, once certainly, of physical
examination of the chest, when either the larynx
or trachea are affected, are well known, too
great is this that some authors regard the stetho-
scope as totally useless as a means of diagnosis
when the windpipe is affected. This case supports
the opinion of those who hold that ulceration
of the larynx is vola & not with in the bowmans
or the trachea.
Diarrhoea is always complicated with tubercular deposit. This theory may often be correct, but it by no means holds good universally.

Local treatment would have been useful here, as a means of alleviation, the improvement of the system the only rational mode of cure.

Case VI.

David Donnie admitted Nov. 1851, Rpt. 41. This patient had a strong dry frame, the emaciated type. His present complaint began in Sept. 1851, when he was much exposed to the vicissitudes of the weather, working also in a very damp neighborhood. He retired to bed one evening (in a damp room which was newly plastered) in perfect health, in the morning he was seized with violent vomiting which lasted almost incessantly for 24 hours. When the vomiting ceased, he felt pain in the throat, and difficulty in swallowing, slight cough. This voice which before the vomiting was perfectly natural, had become so hoarse that he could scarce speak in a low whisper, on attempting to swallow fluid. The cause was great irritation by entering the windpipe. These symptoms have existed ever since, regardless
according to circumstances. At this period, his strength was not impaired. He continued uninterrupted at his occupation. Ten months ago all his symptoms underwent a marked change. He had severe angina, after which the cough increased, the expectoration became purplish, presented for the first time the purulent character, distressing fits of dyspnoea often occurred, which were relieved by the expectoration at present; the cough is very severe, the expectoration purplish very purulent. The voice is very hoarse, slight pain in larynx; after great dyspnoea; occurring during the night. On physical examination of the chest, there is evidence of tubercles at the apex of right lung. But these symptoms are severe. Occasional vomiting. Depression exceedingly, rejected & anxious. Nov 26. Cough very distressing. Sputum has appeared for the first time. Pain in bowel. No appetite. Taint exceedingly. Distressed Nov 27. Shooting continue, but relief was obtained by the opium. During the few days longer that he remained in the hospital, the sign of life: pulmonary disease became more apparent. The sickness in every way increased. He died on the morning after dismissal, but most unfortunately there was no examination of the body.

This
This is a case of succeeding interest. It presents us with chronic laryngitis in its first forms, the simplest, the most insidious. For seven years the symptoms were scarcely worthy of remark, except the great aphonia and the slight cough. The suddenness of the attack is by no means rare. This simple form of laryngitis seems quite compatible with health and strength; the loss of voice causing the only inconvenience. The pulmonary lesion was evidently of short duration, since men with great certainty date its commencement from the period of the injury to months before admission. This is a very marked case of Phthisis laryngea. The Phthisis is not far advanced, at least the physical signs of the disease were obscure; although the cough and expectoration were very severe intermittent, they did not seem to proceed from the lungs; the cough was short, of a peculiar ringing character. Seemed to proceed entirely from the larynx. The expectoration was sometimes hawked up, for inspection of the throat could be seen in the back of the larynx. The laryngeal affection in every probability preceded the pulmonary, gradually extended along the passages. If the pulmonary
affection had advanced so far as to produce such urgent symptoms, it is very unlikely that the physical signs would have been at all masked. The paroxysmal dyspnoea in this case, is very constant in chronic laryngitis; but the sense of suffocation was never very much complained of.

This patient before admission had undergone very little treatment; for some weeks a strong solution of the smoke of silver was applied to the upper part of the larynx, but this was attended with little benefit. At first the application gave some relief to the uneasiness in cough, it rendered also the expectoration less abundant for some hours. But after a few applications of this remedy the good effects were not observable. Repeated counterirritation, or the establishment of an issue from the side of the larynx, as recommended by Dr. Cheyne, might have been serviceable.
Follicular disease of the air passages.

It is of comparatively recent date, that some of the various diseases of the air passages were separated from each other, recognized as distinct affections. A short time only, has follicular disease attracted attention, or had its peculiarities notified. Some consider this a malady which has but lately appeared, but when we reflect upon the past and causes of it, such a supposition is extremely doubtful. Considering that some affections peculiar to the lungs, or those seated in the larynx, ceased to be confounded with one another at no remote period, it is by no means remarkable, that a morbid action, differing in no striking manner from other more grave affections of this part, leading to a common form of destructive ulceration, should have escaped the notice of physicians, until more serious maladies had become distinct and familiar. In the year 1870 the follicular one throat prevailed throughout Europe to a remarkable extent, following closely upon the epidemic of influenza so prevalent at that time. It has been stated that this operated powerfully
in the production of the follicular sore throat; it
was nearly a great prevalence of one of its most
frequent causes, viz., pharyngeal tubercle, which
effects influenza is well known to produce upon
the system.

This complaint exhibits itself
under various forms; it may be confined to the
spaces only, or to the back part of the pharynx;
it may extend deeply into the air passages, or
even invade the anterior of the oesophagus itself.
It comes in degree too, as well as in extent, appearing
sometimes alone, or in conjunction with any of those
affections to which the larynx is liable.

The disease consists in hyper.

Hpuy, secretion, tubercular deposition or ulcer.
lation of these soomes glands spoken of, whilst
touching upon the anatomy of the larynx. It
is in these follicles that the disease essentially exists,
the intervening mucous membrane, may, or may not,
take on the diseased action. The follicles of the
pharyngeal membrane appear in the first instance
enlarged and inflamed, while the mucous membrane
around may be quite normal, or even paler than
usual. Sometimes it appears occurrence than
not
Hypertrrophy, a term chiefly used when a mass of follicles are aggregated together. Infiltration of a puriform submucous matter often takes place when the irritation is continued for some time, or at last ulceration, which does not happen for a long period, appears, spreads rapidly to the adjoining tissues.

This complaint often steals on slowly at its commencement, is often far advanced before the patient suspects the existence of any disease. In its mildest form it begins in the glandulae of the jacea of pharynx, afterwards it extends variously in different circumstances. The first symptoms are unpleasant sensations in the back part of the throat, frequent desire to swallow produced by the feeling of some foreign body being lodged, as it were in the throat, and frequent hacking to relieve it; the tone of the voice becomes altered, it loses power, harshness, to a greater or less degree supervenes. Speaking aloud, chiefly for any length of time causes great aggravation of these symptoms; the change of voice always becomes more marked towards night. The mucous secretion becomes more abundant, its
opacities resided. When the throat is examined at this stage of the disease, it appears pain inflamed; the epithelium is destroyed, the mucous follicles are hypertrophied and quite visible thru the mucous membrane. The follicles are often filled with yellowish tubercular substance, streaks of pus-like mucus are seen hanging from the palate covering the pharynx. The disease may continue thus, for many years undergoing no great alteration, but the patient generally suffers an exacerbation of his symptoms on exposure to cold, or insensible rise of febrile. If the disease progresses, the symptoms become very severe; the hoarseness is excessive after speaking or reading. This is accompanied by some pain in the larynx, and attempts to use the vocal organs are attended with extreme languor, not only of the organs themselves, but also of the whole system. Mental depression is thought by some to be pathognomonic of the disease; in speaking of the difference between the symptoms of tubercle of the lungs & follicular disease he says: "That peculiar mental condition incident to pulmonary disease, by which the spirits are lowered up, these often continues right to the last, is well known. The
reverse of this obtains in follicular disease. In the latter affection, mental depression is to some extent so universally present, particularly where the affection has been protracted that there been led, almost to consider it characteristic. The voice is sometimes nearly lost, or has a most discordant tone; but this, I apprehend, happens only in those cases where the disease is attended with ulceration of the cartilages. Cough is a very rare accompaniment in this complaint, and this is one of the modes by which it can be distinguished from more serious laryngeal affections. The passage are freed from the abundant secretion by sneezing, but in some very advanced stages cough is sometimes present.

At one time this disease was supposed to affect public speakers exclusively. "Altho," says Dr. Green, "this disease seemed to have been confined entirely to dry-gummen and public speakers it soon began to affect those unaccustomed to much exertion of the vocal organs." Nearly four hundred cases fell under Dr. Green's notice early seventy eight, or one in five, were public speakers. But when the affection does occur in those accustomed
to much speaking, singing &c., it is always for obvious reasons, in a more aggravated form. It appears to have an undoubtedly hereditary tendency, so very liable to develop itself when those so predisposed are obliged to breathe vitiated air, or an ill-ventilated atmosphere. There is a case reported where four in the same family, the mother, & three sons who were clergyman, had the complaint at the same time; there is another instance, where four members of one family were affected at once. One of the most powerful predisposing causes here, is general debility. I have already noticed the prevalence of follicular rise throat after the epidemic of influenza in the year eighteen thirty; a similar epidemic of follicular disease followed the influenza of eighteen hundred thirty seven, & of eighteen hundred forty three. Weakness of the system becomes an especial exciting cause when connected with severe mental labor, or great anxiety. Immoderate use of tobacco seems to be a fertile cause in producing this affection, and an almost insuperable obstacle to cure when the disease has been once established.

It would be endless to enumerate...
enunciate the remedies which have been recommended in this disease, as few only deserve notice. Among the general remedies none has enjoyed greater reputation: seeing that strumie acts vigorously in reducing glandular enlargements, it will no doubt have an equal effect upon the guinea glandulae; some consider it to cause a specific action in follicular disease, by changing both the character, sparseness of the guinea gings to the lining membrane of the larynx a healthy appearance; large doses of the iodide of potassium is the best pre:

paration. Recovery. When chronic thickening of the trachea take place, this mineral is immensely useful, when taken in the dose of 1/2 to 1 oz. of the iodide in combination with arsen or hyoscyman. Pure aci... ammonia at one time more or less in the treatment of this complaint. Change of climate always of the greatest service. It often removes the patient from an atmosphere very liable to injure in the disease; change of scene removes the depressing condition of the patients mind and thereby creates a resolution in the constitution, rejuvenates the system, imparts new life to the body. But however desirable in such cases, it is seldom that we can prevail upon our patients to adopt this mode of cure. Lepidium

remedi
remedies are found of the most permanent service. Many substances have been applied locally to the region nearest to the larynx with great benefit: sulphate of zinc, psorsin, bromide, salam are often applied by means of an application. As temporary agents, they enjoy great reputation. The most ternceable remedy here, as in other affections of the larynx is oxbile ophthale. It has been employed for a very long time, as a local application to the throat of larynx, but it was only in the beginning of the present century that Dr. E. Bell proposed to apply it directly to the interior of the larynx. Mr. Tho. H. Belloc was the first who treated some forms of larvapptic successfully by means of this local application. Dr. J. Ever has been very fortunate in curing the follicular disease in this manner, he has published the results of extensive experience on the subject. There before one nearly a volume of cases illustrated of the efficacy of this remedy. The salt is applied in the form of solution of the strength per drachm of one drachm, to an ounce of distilled water; the solution is conveyed to the larynx by means of a small piece of sponge attached to and by suction. It is of great importance
to educate the junces, to enable the application
of the sponge, without great manipulation. The instru-
cements required are, an apparatus for depressing the
tongue & the pharynx. I accompanied Dr. Green, and
the clinical ward of the dispensary for last winter,
whilst examining some of the patients affected with
laryngitis, passing the sponge into the larynx.
I carefully watched his mode of procedure; having
progressed a good deal, the patient's mouth was
properly opened, the tongue depressed & drawn
forward so as to give plenty of space, render
the passages as free as possible; the sponge was
pushed along the instrument which depressed the
tongue held steadily at the junces, the patient
was now ordered to take a deep inspiration, then

to expire gently; the sponge was plunged with a
good deal of force into the larynx. Dr. Green
was very careful to keep the sponge nearly in the
middle line, avoiding touching the pillars of the
junces. In most of the cases, in which Dr. Green
introduced the sponge, great spasm of the larynx
was produced after the instrument was withdrawn,
but the slightest inspiration a cough relieved all the
outstanding symptoms instantly. The method above

described
described by Mr. Guerassot as there, of passing the sponge into the larynx. The spasm produced in most cases is sometimes alarming, though if occurring in some constitutions be attended with serious consequences. Dr. Bouchut when writing on this subject says "La sphygie, si bien inmediata peut en etre la consequence, si l'on a laisse trop long temps l'orange sur la glotte, et si une trop grande quantite de liquide a penetrer dans la larynx. Ce accident est fort grave, car il peut determiner la mort, ou au moins la necessite de pratiquer unguit la tracheotomie."

There is much scepticism amongst medical men, regarding the possibility of passing the sponge thru the chordae vocales; some surely admit that the sponge reaches as far as the vocal cords themselves. There is no doubt, that admitting the possibility of the operation, it would require considerable practice & dexterity to succeed adeptly. In some cases of irritability, the difficulty would be insurmountable. Considering the sensitive condition of the parts, together with the principle reflex spasm of the contracting which are induced by the introduction of a foreign body, it is evident that no education of the parts will ever reduce them.
their sensitiveness so far, as to make them admit the sponge without violent endeavors to arrest it; if therefore the operation in question is practicable, it must be accomplished by mechanical force sufficient to overcome this resistance. Regarding the size of the opening, there is no difficulty; the stiffe tissues are abundantly capable to permit the sponge to pass. I have frequently tried to introduce the sponge through the ends of a dissected lamina, but always found great difficulty in doing so. By more pushing, but as soon as I made the transverse diameter of the lumen greater, by separating the ends, the sponge entered with great facility. The sponge is easily passed from below upwards in the dissected condition, but on attempting the passage from above great difficulty, as experienced in consequence of the ends themselves being pressed downward, to becoming themselves almost insuperable obstacles. Some persons assert that they can pass the sponge not only through the ends, but down into the trachea, or even into the bronchus. There must be some great fallacy here, which is to be explained by the very probable circumstance, that the instrument enters the rose shape, if filling, are produced
produced both to the operator, & the patient exactly similar to those induced when the tongue is irritated. In passing the sponge on the dead subject, these often been deceived in this manner, the directions are almost the same in the different tubes, & the resistance offered by the collapsed fihes of the gullet, is apt to convey the idea that you have passed the constriction of the cords. Many are of opinion that the sponge is grasped by the pharyngeal muscles, when the fluid contained in it is squeezed out trickle into the wind-pipe, at a meeting of the London Desuire Union a few months ago, most of the members were of the opinion, that this was the chief explanation of the matter. I think that the instrument in question can be introduced with facility into the upper part of the pharynx, but it is rarely passed beyond the true cords.

And. Delor

Edinburgh
March 1852