hyperkeratosis alone requires consideration. A comparison, however, of the papillæ from a case of black tongue with those from a normal tongue, shows that although the papillæ in the two cases differ in size and colour, the degree of cornification is the same in both.

The author's view is that the papillæ filiformes become lengthened from some cause, most often a slight glossitis produced by disease of the nose, throat, or digestive tract, by smoking, the use of drugs which like mercury are excreted by the mouth, stomatitis, etc. The papillæ thus lengthened become stained in a purely chemical way by ingesta (food, wine, tobacco), or by drugs (iron, mercury). This view is consistent with the microscopical appearances, and is supported by the great variety of the colours which are observed, for example, in the same patient at different times, black, blue, and brown. Hydrogen peroxide (10 per cent.) painted on once or twice a day is the best application for removing the colour, while stomatitis, if present, will require treatment. A complete bibliography is given.

PHARYNX.

Wylie, Andrew (London).—Foul Breath: its Causes, Pathology, and Treatment. "West London Med. Journ.," vol. xiii, No. 2, April, 1908.

In an interesting paper the author tabulates various causes which conduce to breath fœtor. He classifies the types of fœtor as: (1) the putrefactive type; (2) the sulphuretted hydrogen type; (3) the garlic type: (4) the sweetish type; and (5) the toxic or hepatic type. He further classifies fœtor breath according to the different regions responsible for its source, summarising them thus: (1) Diseases of the nose and its accessory cavities, causing nasal obstruction and mouth-breathing; (2) imperfect deglutition; (3) oral and lingual affections; (4) diseases of the teeth and gums; (5) diseases of the tonsils; (6) chronic suppuration of the middle ear; (7) affections of the naso-pharynx; (8) diseases of the lung; (9) foreign bodies in the mouth, nose, pharynx, or larynx; (10) constitutional causes.

Some diseases of the nose cause a specially pronounced odour, for example, rhinitis sicca, which arises when the secretion is impaired or diminished in quantity and quality. A similar condition is found in atrophic rhinitis, where actual structural degeneration of the mucous membrane has taken place. Thus, in caseous rhinitis, where the pus and débris are charged with various forms of moulds, yeasts, and putrefactive bacteria, such as Aspergilli torulæ and the Bacillus butyricus, and in chronic diseases of the accessory cavities where pus is lodged in the maxillary antrum, or the ethmoidal, frontal, or sphenoidal sinuses, also in tertiary syphilis with necrosis of the ethmoid or vomer. In septal perforations, whether from operations, from tuberculosis, or syphilis, there is also fætor, and the same is found when polypi and sinusitis co-exist. Generally speaking, fætor may be present in any malformation of the nose which interferes with free discharge and proper ventilation.

Speaking of the constitutional causes, he mentions: (1) Gastrointestinal derangements and dyspepsia, especially those which are associated with dilatation of the stomach. In patients troubled with severe chronic constipation there is a peculiar sickly, almost fæcal odour from the breath. Spirit drinkers have quite a different odour from beer drinkers; the former is of a vinegar type, while the latter have the characteristic smell of stale malt liquor. The breath of cigar and pipe smokers has a different smell according to the favourite form of using tobacco. (2) Different varieties of glycosuria cause a sweetish odour to the breath. (3) Menstruation always causes some change in the breath; in some individuals it is so pronounced that they can hardly mix with society during that period. (4) During lactation also in some patients there is a marked odour from the breath. (5) Drugs have a great influence on the breath, and it is one of the signs to watch for in their administration. Lead and mercury produce a well-known effect on the gums, and in extreme cases much fætor. All preparations of sulphur cause a characteristic sulphuretted hydrogen smell of the breath, Copaiba and valerian have a cat's-meat smell, iodoform a rancid smell. and belladonna and opium diminish secretion and cause a dryness of the mucous membrane to which bacterial activity may be superadded. (6) Occupations have also a great deal to answer for as regards foul breath. Milkmen, or those continually working in milk, have a peculiar odour owing to constant contact with the B. butyricus. The reason of this is probably the direct transference of the bacillus by the fingers to the nose with consequent rhinitis. The same theory applies to workers among skins and furs, who have a peculiar animal odour. Those who work with phosphorus, lead, or brass, have a peculiar metallic odour from their breath, which is associated with rhinitis and "spongy" gums. Many nervous diseases cause an odour from the breath, such as is found in paralysis and apoplexy. The foul breath which frequently follows a hemiplegic attack is doubtless quite familiar. Mental dulness and physical disability prevents proper cleansing of the lips, teeth, and tongue; thus sordes accumulate and fætor is produced.

Dealing with the treatment of these conditions he points out that successful treatment of feetid breath depends first upon a clear recognition of the cause; secondly, on the persistent and thorough employment of the methods adopted; and thirdly, on the intelligent co-operation of the patient. Remedies to overcome feetor must not be taken in hand in a half-hearted manner; they must be persevered with most thoroughly, and the patient should be instructed in every detail of the technique, whether this includes a douche, spray, or insufflation. A mere temporising by the use of "deodorisers" only results in disappointment if the fons et origo mali remains untouched. The chief aim in overcoming foul breath is to treat and remove the immediate cause, which is usually bacterial in origin, whether primary or secondary. With the object of clearing away feetid accumulations in the nose and naso-pharynx, "solvent" douches must be employed. It is useless merely to employ antiseptics which do not possess the power of dissolving mucin, albumen, and the constituents of crusts. The best ordinary solvent is sodium sulphate (1 per cent. solution) or sodium biborate or carbonate (in 0.5 per cent. solution). The nose should be thoroughly douched with this until the breath-way is free from crusts and caseous matter. Antiseptics can be employed afterwards direct to the membrane by means of sprays. In mild cases, when the fector is not severe, and when the mucous membrane is still sensitive, the olfactory function not being destroyed, an atomiser of liquid paraffin containing menthol, oil of cinnamon, or eucalyptus is preferable, but, if the fætor be very intense, Dobell's alkaline solution of phenol may be sparingly used.

Healthy secretion is restored by gentle stimulation. This can be done in mild cases by using a snuff composed of boracic acid with otto

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of roses, but, when the disease is very atrophic and secretion scanty, 5 per cent. of lysoform should be added as a powerful stimulant and antiseptic. Sea water, boiled and decanted, forms an excellent douche, especially when combined with a visit to the sea air. The nasal and pharyngeal mucous membranes, except in cases of atrophic rhinitis, are very sensitive, and will not tolerate antiseptic solutions of anything like the strength and intensity which the mouth does. Densely hard crusts are painlessly removed by inhalation of steam, camphor being added to the hot water as a stimulant. To facilitate oral hygiene solutions of lysoform (1 per cent.), sanitas, peroxide of hydrogen, etc., are most beneficial; permanganate of zinc (1 in 500) or zinc chloride ($\frac{1}{2}$ per cent.) is recommended in cases of "spongy gums." Lauzun-Brown.

Crockett, E. A. (Boston).—Two Cases of Humorrhage following the Removal of the Tonsils. "Boston Med. and Surg. Journ.," November 14, 1907.

The author has used a tonsil snare for eight years for the removal of tonsils, having previously employed a tonsillotome, knife or scissors. The two cases of hæmorrhage described followed the use of a snare wire two sizes larger than No. 5. In both cases the hæmorrhage was very severe, and would have been fatal had not help been speedily obtained.

Macleod Yearsley.

Langworthy, H. G. (Dubuque, Iowa).—Adenoids and Tonsils: From the Standpoint of the General Practitioner, with Special Reference to an Examination of the Throat in Chronic Systemic Infections, and "Consideration of the Question of Status Lymphaticus in these Cases. "Boston Med. and Surg. Journ.," January 30, 1908.

The purpose of this paper is to discuss recent deductions, chiefly experimental, dealing with tonsils and adenoids in their connection with certain general infections. The relation of the tonsils to rheumatism is discussed at length, and the important question of tonsils and adenoids and tuberculosis is also dealt with. The author quotes the conclusions of Brown, of San Francisco, in proof of the tonsils being portals for septic disease and tubercle. Langworthy considers that adenoids should always be removed where there is any reason to look upon them as responsible for symptoms. In discussing "status lymphaticus" he asks two important questions: (1) Whether a diagnosis thereof can be made during life? (2) Whether cases of greatly enlarged adenoids and tonsils are more likely to fall in this class than individuals who are not so affected? His reply to the first is that a positive diagnosis is extremely difficult, if not impossible. As to the second point, it is only when tonsils and adenoids are associated with absence of pubic hair in the adult, frequent attacks of syncope, dyspnœa, and laryngismus stridulus, etc... that the possibility of a constitutio lymphatica should be considered, Langworthy finally protests against the unsurgical practice of leaving large pieces of tonsil behind. Macleod Yearsley.

Handley, Sampson.—A Case of Complete Resection of the Pharynx with Laryngectomy for Squamous Carcinoma of the Posterior Pharyngeal Wall. "West London Med. Journ.," April, 1908.

The author describes the case of a woman, aged forty-four, with a growth completely obstructing the pharynx at the level of the cricoid cartilage. The patient was emaciated, suffering from attacks of dyspnœa,

and desired relief. A preliminary gastrostomy was performed, and ten days later a low tracheotomy; then the pharynx was exposed and opened below the hyoid bone and the growth with the larynx, the whole of the lower half of the pharynx, and the left lobe of the thyroid body were removed. The œsophagus, trachea, and the pharynx at the level of the hyoid bone were closed with sutures, and the skin flap replaced. The patient recovered rapidly, and seven weeks after the operation she was comfortable, with weight increased and colour improved. A funnel-shaped india-rabber tube lying behind the tongue passing out through the pharyngeal fistula and so downwards to the stomach, allows her to swallow her saliva but not to feed through it. The patient can whisper, although no air from the lungs enters the mouth. The writer states that similar cases have been recorded by Gluck, of Berlin, but none in this country.

Andrew Wylie.

Sehlbach (Zella St. Bl.).—A Typical Case of Sudden Cessation of Menses with Angina. "Münch. med. Woch.," March 31, 1908.

The patient, who had a dread of gestation, was greatly alarmed, but the author assured her that the angina was a sufficient cause. This opinion was confirmed by the normal return of menstruation the following month.

Dundas Grant.

Tormene, Enrico (Mantua).—On the Behaviour of the Three Resistances of the Red Blood-Corpuscles in Adenoid Subjects. "Archiv Ital. di Otologia, etc.," November, 1907, p. 501.

This is a preliminary note by way of contribution to the hæmatology and pathogenesis of adenoid vegetations. As his observations were made on only six cases the author does not attempt to draw very definite conclusions. He divides the red blood-corpuscles into three groups according to their resistance: maximum, medium, and minimal. He finds that in all his advanced cases there was increase of the maximum resistance, and that this continued for not less than four weeks after the removal of the growths, when it generally sank to normal. The other resistances were too variously affected for any conclusion to be drawn. The author suggests that, as in certain morbid states (e.g. icterus), a substance possessing a catatonic action is found in the blood, there may be in the subjects of adenoid disease a substance with hæmo-anatonic action which will affect certain groups of red corpuscles in an opposite sense to the action of the catatonic agents. In a future work the author hopes to give a definite answer to the interesting questions: Whence do the serums of these adenoids derive their increased potentiality? And whence comes the anatonistic agent that acts on the corpuscles of maximum resistance? James Donelan.

NECK AND THYROID.

Jackson, J. M., and Mead, L. G.—Some Clinical Observations on the Diagnosis and Treatment of Exophthalmic Goitre. "Boston Med. and Surg. Journ.," March 12, 1908.

A review of 85 cases (80 women and 5 men), treated with neutral hydrobromide of quinine (formula, $C_{20}H_{24}$ N_2O_2 $HBr + H_2O$) in 5 grain capsules three times a day. This drug may have to be given continuously for two years. Thyreoidectin was used in 12 cases. The authors do not