

lip (see Fig. 13), which may attain double its normal size. The diagnosis depends on the exclusion of all known causes (trauma, infection, insect bites) and on the history of similar swellings (on the lip or elsewhere) in the past.

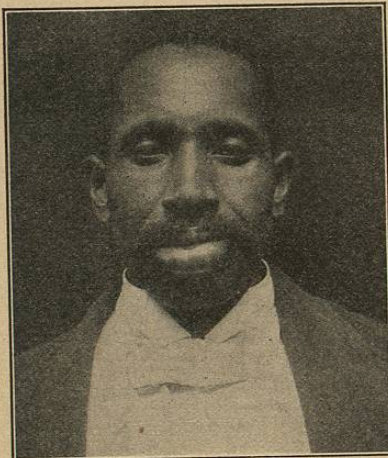


FIG. 13.—Angioneurotic Edema of Lower Lip.

bone). Diagnosis is made at a glance.

X. THE TEETH.

The first set of teeth is fairly constant in its order and date of appearance. In Fig. 14 the number of the month when each tooth is most apt to appear is marked on the tooth. The second set (permanent teeth) arrives (less regularly) between the sixth and the fifteenth year, except the "wisdom teeth," which appear about the twenty-first year.

1. *Rickets* or cretinism often delays dentition considerably.

2. *Congenital syphilis* may be associated with deformities of the central incisors (permanent). The most constant is that shown in Fig. 15.

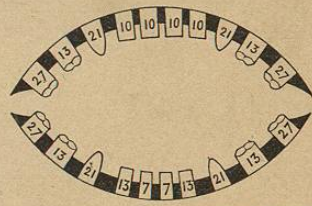


FIG. 14.—Diagram Showing the Month at which Each Tooth (of the First Set) Should Appear.

9. The enlargement of the lips in myxœdema and cretinism has been mentioned above (page 18).

10. *Hare-lip* is a vertical slit (congenital deficiency) in the upper lip opposite to the nostril; it is often connected with an antero-posterior cleft through the hard palate ("cleft palate"). The lesion may be double, leaving a small island of tissue continuous with the nasal septum (intermaxillary

3. *Teeth-grinding*.—Nervous, delicate, oversensitive children often grind their teeth in their sleep. There is no foundation for the popular superstition that this act indicates "worms."



FIG. 15.—Notched Incisors in Congenital Syphilis.

XI. THE BREATH.

Foul breath is oftenest due to:

- (a) Foul teeth and gums (neglected).
- (b) Stomatitis of any variety.
- (c) Gastric fermentation (with or without constipation).

Rarer causes are *abscess or gangrene of the lung*, in which the breath may be intensely foul; the source of the odor is made evident by the sputa.

Acetone breath has a faintly sweetish odor, which has been compared to that of chloroform, new-mown hay, and rotting apples. It occurs not only in diabetes, but in various conditions involving starvation (vomiting, fevers), and especially, but not only, a lack of carbohydrates.¹

In *uræmia* a foul odor is often noticed, and an ammoniacal ("urinous") smell has been mentioned by many writers. In *typhoid* and in *syphilis* some persons seem to detect a characteristic odor, but the evidence is insufficient. *Alcoholic breath* is often of

¹ See Taylor: "Studies on an Ash-free Diet." University of California Publication, July 30th, 1904.

value in correcting the false statements of its possessor. In comatose persons we must remember that a drink may have been taken just before an attack of apoplexy or any other cause for coma, so that an alcoholic breath in comatose patients does not prove that the coma is due to alcohol.

In *poisoning by illuminating gas* the gaseous odor of the breath may be noticed.

XII. THE TONGUE.

The act of protruding the tongue may give us valuable information on the condition of the nervous system.

(a) The *hesitating, tremulous* tongue of typhoidal states is very characteristic. Simple tremor is seen in alcoholism, dementia paralytica, and weakness.

(b) If the tongue is protruded to one side, it usually means facial paralysis as part of a hemiplegia; rarely it is due to lesions of the hypoglossal nerve or its nucleus (in bulbar paralysis or tabes).

(c) A *coated tongue* (due mostly to lack of saliva) is not often of much value in diagnosis, and there is no need to distinguish the varieties and colors of coats; but a few suggestions may be obtained from it. Many persons who seem otherwise perfectly healthy have coated tongues in the early morning. This is especially true in mouth-breathers, in smokers, and in those who keep late hours.

In those whose tongues are usually clean the appearance of a coat is associated often with gastric fermentation, constipation, or fevers.

A *clean tongue in a dyspeptic* suggests hyperacidity or gastric ulcer. This point I have found of more value than any inference from a coated tongue.

A *dry, brown-coated*, perhaps cracked tongue goes with serious exhausted states and wasting diseases with or without fever.

(d) *Cyanosis* and *jaundice* may be seen in the tongue, but better elsewhere.

(e) *Indentation* of the edges of the tongue by the teeth occurs especially in foul, neglected mouths, but has no diagnostic value.

(f) *Herpes* ("canker") often occurs on the tongue; it begins as

a group of vesicles, but these rupture so soon that we usually see first a very small, grayish ulcer with a red areola. It heals in a day or two, *i.e.*, more quickly than the syphilitic mucous patch or any other lesion with which it is likely to be confounded.

(g) *Cancer, tuberculosis, and syphilis* may attack the tongue and form deep, long-standing ulcerations. *Syphilis* can usually be diagnosed by the history, the presence of other syphilitic lesions, and the therapeutic test (see Fig. 16). *Cancer* and *tuberculosis* should

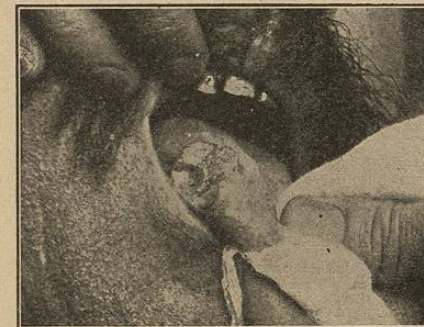


FIG. 16.—Syphilis of the Tongue.

be diagnosed by microscopic examination, though cancer is more commonly found in men (especially smokers) past middle life and on the side of the tongue.

(h) "*Simple ulcers*" are due to irritation from a tooth or to trauma, and heal readily if their cause is removed.

(i) *Fissures* of the tongue are usually due to syphilis, which is recognized in other lesions.

(j) *Leukoplakia buccalis* (lingual corns) refers to whitish, smooth, hard patches of thickened epithelium, usually on the dorsum of the tongue in smokers, running a chronic course without pain or ulceration, but important because epithelioma has been known (and not very rarely) to develop in them.

(k) *Geographic tongue* is a desquamation of the lingual epithe-

lium in sinuous or circinate areas, which spread and fuse at their edges, while the central portions heal, giving a look something like the mountain ranges in a geographical map. It usually gives no trouble unless the patient's attention becomes concentrated on it.

(l) *Hypertrophy* of the tongue has already been mentioned in connection with myxœdema and cretinism. It may occur independently as a congenital affection.

XIII. THE GUMS.

(a) A *lead line* should be looked for in every patient as a matter of routine, as it may not be suggested by anything in the patient's symptoms or history, yet may be the key to the whole case.

The deposit of lead sulphide in (not on) the gums is not blue, but gray or black; and is not a line, but a series of dots and lines

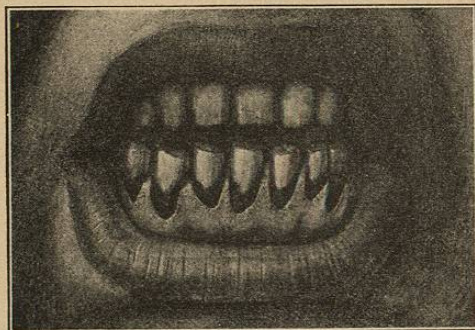


FIG. 17.—Lead-dots in the Gums.

arranged near the free margin of the gums and about one millimetre from it. Where there are no teeth there is no lead line. In faint or doubtful cases a hand lens is of great assistance and shows up the dotted arrangement of the deposit very clearly (see Fig. 17). It is unfortunate that the term "blue line" has become attached to these gray-black dots.

(b) *Sordes*, a collection of epithelium, bacteria, and food particles, accumulates about the roots of the teeth with great rapidity in febrile cases, but has no considerable diagnostic importance.

(c) *Spongy and bleeding gums* occur as part of the disease "scurvy," after overdoses of mercury or potassic iodide, in various debilitated states, and sometimes without known cause. The teeth are loosened and the flow of saliva is usually profuse. The stench from such cases is often intolerable.

(d) *Suppuration* about the roots of the teeth (*pyorrhœa alveolaris*) is common in neglected mouths, and seems in some cases to injure digestion, but in most cases its effects appear to be wholly local.

(e) *Gumboil (alveolar abscess)*, originating in a carious tooth, is easily recognized by the familiar signs of abscess associated with a diseased tooth and sometimes with a surprising amount of swelling of the face.

(f) "*Epulis*" is a word applied to various soft tumors springing from the jaw bone or occasionally from the gums themselves. Many of them are sarcomatous, but microscopic examination is necessary to distinguish these from fibroma, granuloma, and angioma.

XIV. THE BUCCAL CAVITY.

1. Eruptions.

(a) *Koplik's spots* in *measles* are of much importance. They appear chiefly in the inside of the cheeks, opposite the line of closure of the molars, and consist of minute, bluish-white spots, each surrounded by a red areola and sometimes fusing into larger red areas.

(b) The *syphilitic mucous patch* (see above) should be looked for in suspicious cases, not only in easily accessible parts of the mouth, but round the roots of the gums, where the cheeks or lips have to be pushed away to afford a good view.

2. *Pigmentations.*

In Addison's disease brown spots or patches often occur on any part of the mucous membrane of the mouth. They may also occur in negroes without any disease and after ulcerations (*e.g.*, from a tooth), so that they are not distinctive of Addison's disease.

3. *Gangrene.*

Gangrene (stomatitis gangrenosa, "noma"), a rare disease of weakly children, starts as a hard red spot inside the cheek and usually not far from the corner of the mouth. There is a swelling of the whole cheek, especially under the eye. The odor of gangrene is usually the first thing to make clear the diagnosis. Then the gangrene appears externally as a black patch on the cheek, surrounded by a red halo.

XV. THE TONSILS AND PHARYNX.

METHOD OF EXAMINATION.—Place the patient facing a good light, natural or artificial. Ask him to open his mouth *without protruding the tongue*. Ask him to say "Ah." Then gently press down and forward on the dorsum of the tongue (not too far back) with a spoon or tongue depressor,¹ until a good view of the throat is obtained.

Look especially for:

1. Inflammations (redness, eruptions, spots, or membranes).
2. Ulcerations.
3. Swellings.
4. Reflexes.

1. *Inflammations.*

(a) *General redness* means a mild or early pharyngitis, but may precede severe diseases like diphtheria and scarlet fever.

¹ If the patient is especially nervous, it is sometimes well to let him press down his tongue with his own forefinger.

(b) *Yellowish-white spots* on the tonsils, more or less confluent, mean *follicular tonsillitis* in the vast majority of cases, but only by culture can we exclude diphtheria with certainty. Fever and headache are usually present.

(c) A *membrane*, continuous and grayish-white over one or both tonsils, especially if it extends to soft palate and uvula, means diphtheria in almost every case.¹ Rarely a similar membrane is seen in streptococcus throats with or without scarlet fever. Cultures alone can decide.

(d) The *eruptions* of smallpox and chickenpox may be distributed in the pharynx as well as over the rest of the respiratory tract. They are recognized by association with more characteristic skin lesions and constitutional signs.

2. *Ulcerations.*

(a) Deep ulcerations of the tonsils or soft palate are oftenest due to *syphilis*. Improvement under potassium iodide and the manifestations of syphilis elsewhere make the diagnosis possible.

(b) *Tuberculosis* may produce similar deep ulcerations, recognized by their association with obvious tuberculosis of the lung or larynx. Occasionally smaller "miliary" tubercles, not unlike "canker sores," are seen in the tonsillar region. Their chronic course and the presence of other tuberculous lesions identify them.

(c) *Malignant disease* (oftenest sarcoma) may attack the tonsil, and forms a rapidly growing and finally ulcerating tumor. No other lesion of the tonsil grows so fast and invades surrounding parts so extensively except abscess; in abscess the pain, fever, and constitutional manifestations are far greater.

¹ *Thrush*, a rather rare disease of ill-nourished infants, due to a fungus of the yeast order, may produce on the pharynx, tongue, or in any part of the mouth, patches of white membrane. As the disease is almost wholly local and without constitutional manifestations, it is passed over briefly here.

Streaks of *mucus* or bits of *milk coagulum* are sometimes mistaken for a membrane.

3. Swellings.

(a) *Chronic swollen tonsil* (unilateral or bilateral) without fever or constitutional symptoms represents usually the residual hypertrophy following many acute attacks of tonsillitis or may be part of the general adenoid hypertrophy so common in children's throats. Rarely it forms part of the leukæmic or pseudo-leukæmic process.

(b) *Acute swollen tonsil* is usually part of follicular tonsillitis (see above), but may occur without spots, and often accompanies scarlet fever. Swelling, pain in swallowing, and fever are the essentials of diagnosis. Our chief care should be to exclude:

(c) *Tonsillar abscess* (quinsy sore throat). Here the swelling is usually unilateral and greater than in follicular tonsillitis. The *pain*, which is often severe, is continuous and not merely on swallowing. Fever, constitutional symptoms, and swelling of the glands at the angle of the jaw are all more marked than in follicular tonsillitis. The voice is nasal or suppressed, and there is often salivation. The pillars of the fauces and the soft palate take part in the swelling and the throat may be almost blocked by it. The suffering increases until the abscess breaks or is opened. Fluctuation is often late and indefinite, but should always be sought for.

(d) *Retropharyngeal Abscess*.—A swelling in the back of the pharynx near the vertebræ occurs not infrequently during the first year of life. A peculiar cry or cough, like the bark of a puppy or the call of a heron, is very often associated (the French "cri de canard"). The parents are often unaware that the throat is the seat of the trouble, and only digital examination proves the presence of bulging and fluctuation, usually on one side of the posterior pharyngeal wall.

A similar abscess of chronic course may complicate cervical caries (see below, page 31).

(e) *Swollen uvula*, with transparent œdema of its tip, often complicates a pharyngitis or any lesion with violent cough. *Elongation of the uvula* may bring it into contact with the tongue and by tickling excite cough.

(f) *Perforation of the soft palate* or its *adhesion to the back of the pharynx* means *syphilis* almost invariably, and, as it may be the only sign of an old infection, it is a valuable piece of evidence.

4. Reflexes.

(a) *Lively or exaggerated pharyngeal reflexes*, such that the patient gags and coughs as soon as one touches the dorsum of the tongue, are seen in many nervous persons and in many alcoholics without nervousness. It is this condition, combined with a smoker's pharyngitis, that leads to many cases of morning vomiting in alcoholics.

(b) *Diminished or absent reflexes* (with paralysis of the palate) occur in postdiphtheritic neuritis and bulbar paralysis. Fluids are regurgitated through the nose and the voice has a peculiar intonation.

To test for paralysis, ask the patient to say "Ah." In unilateral paralysis one side of the palate remains motionless; in bilateral paralysis the whole palate is still.

THE NECK.

Long, thin necks are often seen in phthisical individuals, and short necks in the emphysematous, but nothing more than a bare hint can be derived from such facts. The lesions oftenest searched for in the neck are: 1. *Enlarged glands* (cervical adenitis). 2. *Abscesses and scars*. 3. *Thyroid tumors*. 4. *Pulsations* (see below, page 88). 5. *Torticollis* and other lesions simulating it. 6. *Tuberculosis* of the cervical vertebræ.

Rarer lesions will be mentioned below.

I. Chains of Enlarged Glands

radiate in all directions from the angle of the jaw—upward, in front of the ear and behind it, forward along the ramus of the jaw, and downward to the clavicle. The areas drained by the different groups overlap so much that it is not necessary to distinguish them.