mouths as affecting one's articulation, I am firmly convinced that the child will never have a good speech.

If, perchance, you succeed in getting what may be considered the right length to the surgical velum in the child, and thus reach to the posterior wall of the pharynx, you will find that as the child grows and develops the last condition will be worse than the first, simply because there has been no commensurate enlargement or broadening of the soft palate. It will, therefore, be a hindrance to perfect speech.

Dr. James L. Little, of New York, once said, in speaking of uranoplasty and staphyloraphy: "I have carefully looked into the results and find that although in a large proportion of the cases the operations are successful so far as the closing of the fissure in the hard and soft palate is concerned, yet so little, if any, benefit is obtained in the improvement of the articulation that I have been forced to the conclusion that they should be discarded as surgical procedures in adults." Seeing also the results of the operation, even when done in childhood, what have we to conclude in the matter? We are convinced that the surgical procedure is a failure.

What you fail to get by a surgical palate we can get in all cases by the use of mechanism, and in the natural development of the child we can easily change the appliance to fit and perform the functions of a natural velum with the greatest accuracy.

I will now show you the phonographic record of the speech of a lady thirty years old who had worn her appliance about a year. She had a very wide congenital cleft and wears the appliance with perfect ease.

You will now hear her read an extract from American history without the appliance in her mouth.

She will now repeat "Nearer my God to Thee," with the appliance in her mouth.

I will show a little girl, ten years old, who has been wearing the appliance a year and a half. You can hear her speak in person. She has always been subject to severe tonsillitic inflammation, but a little less than a year ago quite a piece of each tonsil was cut away, so she is now able to wear the appliance night and day, only removing it to cleanse.

She will now speak without the appliance in her mouth.

She will now recite something with the appliance in her mouth.

I expected to have a young lady here for whom I have just made an appliance, but on account of sickness she is not able to be present.

I have associated with me Miss Sarah Allen Jordan, who is doing excellent work in teaching my patients in their articulation. Her special fitness enables her to supply the needs of these individual cases.

I have a little boy, who was placed in my hands by Dr. Hartwell, for whom I am now making an appliance. At a later period we will be able to show you, I think, in this case some very marked results. Before treatment you may be interested to have his speech by phonograph. This shows it as it is now.

When I was before the Maine Academy of Medicine my paper was discussed by Dr. Thomas Fillebrown, of this city, and I quote the following from his paper: "A serious objection to an obturator is that it is not practicable until the patient is well grown and the most susceptible part of his life gone, and the proper period for learning to talk has long since passed away."

I have shown you results to-night which are quite the opposite to his theory. I prefer to take such cases in early childhood, and I think I can truly say that I find it no more difficult to fit a child to an obturator who is seven or eight years old than for an adult.

Thanking you very kindly for your interest and the attention you have given me, I will conclude my remarks on this subject.

Clinical Department.

THREE CASES OF ABDOMINAL STAB-WOUND: LAPAROTOMY IN EACH CASE, WITH RECOVERY.

BY JOE V. MEIGS, M.D., LOWELL, MASS.,
Surgeon to St. John's Hospital.

THE three following cases occurred during my service in St. John's Hospital; two admitted in 1894 and one in 1895:

CASE I. E. M., single, age twenty-four, an operative. While engaged in a bar-room fight with several partially intoxicated companions he was stabbed several times by one of them with a jackknife which was recently used in cutting tobacco.

He was at once taken to his home near by, and while awaiting the arrival of the ambulance his protruding intestine was wrapped up in a much soiled undershirt. He was admitted to St. John's Hospital on the evening of May 5, 1894, an hour or two after the stabbing, somewhat under the influence of alcohol.

He presented the following wounds: A superficial wound one-half inch in length in the median line of the neck, two inches below the chin; a wound of the chest four inches below the left nipple, one inch in depth and one-half inch in length; a wound two inches in length on the inner side of the left thigh, six inches below Poupart's ligament; a wound two inches in length, two and one-half inches in depth, on the outer aspect of right thigh, about seven inches below the hip; a wound of the abdomen one and one-half inches long, one inch below and three inches to the left of the umbilicus, through which wound there protruded about ten inches of small intestine, which was penetrated just above the attachment of the mesentery by a wound three-quarters of an inch in length, running lengthwise. The intestine was wounded in two other places but not penetrated.

The abdominal wound was enlarged, the wound of the intestine was closed by Lembert sutures, silk being used. The remaining intestine was closely examined for other penetrations but none was found.

The abdominal cavity was flushed with sterile water and closed without drainage. Other wounds received appropriate treatment. Patient made a rapid recovery, and was discharged from the hospital four weeks after admission.

CASE II. P. O., single, age twenty-three, an operative. Received at hands of a companion the following wounds made with a pocket knife:

A lacerated wound of the ulnar side of the right hand, two inches in length; a wound of the little finger of the right hand, two inches in length; an incised wound of the abdomen penetrating the cavity, one-half inch in length, situated a little to the right of the umbilicus.

He was admitted to St. John's Hospital June 10, 1894. The abdominal wound was enlarged, intestine and omentum carefully examined and found to be uninjured. The cavity was flushed with sterile water and closed without drainage. Other wounds received proper dressing. Patient made an uninterrupted recovery, and was discharged, well, July 4, 1894.

CASE III. J. F., single, age twenty-three. Was admitted to St. John's Hospital on the evening of May 20, 1895, having been cut in a street fight. On examination the following wounds were found:

An incised wound on the dorsal aspect of the left hand, severing a tendon; a wound of the abdomen, two inches to the left and one-half inch below the umbilicus, three-quarters of an inch in length, with omentum protruding, seemingly strangulated.

The abdominal wound was enlarged, small wound of the omentum sutured, omentum replaced, intestines carefully examined but found uninjured.

The abdominal cavity was flushed with sterile water, and the abdominal wound closed without drainage. With the exception of a stitch-hole abscess, the patient made an uninterrupted recovery, and was discharged June 20, 1895.

Medical Progress.

RECENT PROGRESS IN LARYNGOLOGY.

BY A. COOLIDGE, JR., M.D., BOSTON.

ETHMOID DISEASE AND NASAL POLYPI.

As a result of the study of the pathological anatomy of ethmoid disease J. N. Mackenzie¹ concludes that the so-called "myxomatous degeneration," described by writers on ethmoid disease, is not due to mucous change at all, but is the result of simple inflammatory action. Purulent ethmoiditis may in many cases endure for years without producing any bone lesion whatever. The changes found represent successive stages of the same affection, and therefore divisions of "ethmoiditis" tend to introduce an element of confusion into our pathological conception of the disease. The ethmoid region affords probably the most excellent place for the study of the origin of so-called nasal polypi. Of great importance is the striking similarity between the young granulation tissue found in the ethmoid region and the structure of round-celled sarcoma, and hence the possibility of error in microscopic diagnosis. The author protests against the careless use of the term "myxoma" as applied to a growth which is histologically an edematous fibroma. Caries, when it occurs at all, is secondary, and of no etiological importance. Except in cases due to syphilis, tubercle, chemical poisons or trauma, it is not the rule to find necrosis, or even caries of bone. When the inflammatory process reaches the bone changes may take place in it similar to those found in atrophic rhinitis; that is, absorption and disappearance. In opposition to Grünwald, nasal polypi are not considered the result of suppuration, although in the vast majority of cases the result of inflammation. The development is as follows: the first stage consists in the formation of young granulation tissue, in the second this tissue becomes gradually converted into definite adult connective tissue, which in the third gradually separates and

causes more or less complete obliteration of the normal structures, and in the fourth converts them into a fibrous mass. This by its position becomes edematous, and assumes the characteristic forms.

Hajek² contributes a similar paper based on the examination of portions of the ethmoid bone and its coverings from patients with polypi and inflammatory hypertrophy of the mucous membrane. A polypus is simply an edematous hypertrophy, essentially of the same nature as a dense hypertrophy. The inflammatory process may be confined to the superficial layers, or extend deeper. Superficial inflammation may be the result of some continued irritation, and may precede, or be found in a different part of the same specimen, with infiltration extending to the glandular layer, the periosteum or the bone itself. When the bone is affected, it may result in new formation or in absorption of the bone, in the latter case leaving in places detached scales. The theory of Woakes, that necrosing ethmoiditis is a common and causative agent, has for some time been abandoned; there is seldom necrosis or caries of bone, except as an accidental complication, or as a result of syphilis or tubercle. The author's researches show that the inflammatory process extends from the outer to the deeper layers, and not in the opposite direction.

TUBERCULAR INFILTRATION OF FAUCIAL TONSILS AND ADENOID VEGETATIONS.

The finding of evidence of the invasion by the tubercle bacillus of hypertrophied pharyngeal and faucial tonsils, to which attention was drawn by Dieulafoy,³ two years ago, has suggested not only a point of entrance of tuberculosis into the system but a possible explanation of the hypertrophied glands themselves. The former possibility has been received with more favor than the latter. Different authors have found evidence of tubercle bacilli in faucial tonsils and adenoid vegetations after their removal. Such varying methods of examination have been used that it is not strange that the percentages in which such evidence was found has varied from one up to 20 or 30 per cent.; neither does the finding of tubercle bacilli on the surface of the gland or in the crypt necessarily point to the gland as a source of tubercular invasion.

McBride and Turner⁴ in one hundred cases found giant cells in three, but consider this percentage as too small.

Gourc,⁵ on the other hand, from a study of two hundred cases, believes that tubercle bacilli are very rarely to be found inside the gland; although frequently on the surface. Several other micro-organisms were found, but the author failed to find any tubercle bacilli or evidence of them when the growths had been previously cleansed.

Wright⁶ believes that, in spite of the recent evidence, tubercular amygdalitis is a rare affection, and that the tonsils are rarely the seat of primary inoculation. Investigations have shown that bacilli do get through the epithelium of the throat and into the cervical lymphatics in tuberculous subjects and in animals fed on tuberculous food. Considering the chances of primary, but especially of secondary invasion, it is certainly rather remarkable that these structures should escape so constantly as they do.

² Archiv. f. Laryngol. u. Rhinol., Band 4, Heft 3.

³ Arch. de Lar., July, 1895.

⁴ Edinburgh Medical Journal, May, 1897.

⁵ An. des Mal de l'Oreille, May, 1897.

⁶ Transactions American Laryngological Association, 1896.

¹ Transactions American Laryngological Association, 1896.